



**14th Annual Conference of the
EuroMed Academy of Business**

**Contemporary Business Concepts
and Strategies in the new Era**

Edited by: Demetris Vrontis,
Yaakov Weber,
Evangelos Tsoukatos

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FOREWORD

The Annual Conference of the EuroMed Academy of Business aims to provide a unique international forum to facilitate the exchange of cutting-edge information through multidisciplinary presentations on examining and building new theory and business models for success through management innovation.

It is acknowledged that the conference has established itself as one of the major conferences of its kind in the EuroMed region, in terms of size, quality of content, and standing of attendees. Many of the papers presented contribute significantly to the business knowledge base.

The conference attracts hundreds of leading scholars from leading universities and principal executives and politicians from all over the world with the participation or intervention of Presidents, Prime Ministers, Ministers, Company CEOs, Presidents of Chambers, and other leading figures.

This year the conference attracted about 160 people from over 23 different countries. Academics, practitioners, researchers, and Doctoral students throughout the world submitted original papers for conference presentation and for publication in this Book of Proceeding. All papers and abstracts were double blind reviewed. The result of these efforts produced empirical, conceptual, and methodological papers and abstracts involving all functional areas of business.

Due to challenges associated with the COVID-19, the EuroMed 2021 conference had to go online for a second consecutive year. The EuroMed Academy of Business would like to wish you the very best during these challenging times. We want you to know how much we value and appreciate your contribution to the EuroMed community, and we wish you and your families all the best. Our thoughts go to those who suffered from the disease, to their families and friends, and to the doctors and medical staff who are fighting day after day at the forefront of the pandemic.

We wish to all that this 'different' and unique conference will be both fruitful and stimulating, as it used to be during the last 13 years.

ACKNOWLEDGEMENT

We have all worked hard to ensure that this new online experience will be a great one for all participants. Consequently, most of our annual regular activities were normally scheduled online, including the inauguration event and keynote speech, parallel presentation and discussion sessions, journal special issue paper development workshops, networking and collaboration workshop, research project and publication workshop and more.

Many people and organizations are responsible for the successful outcome of the 14th Annual Conference of the EuroMed Academy of Business.

It is acknowledged that a successful conference could not be possible without the special co-operation and care of the Track Chairs and Reviewers for reviewing the many papers that were submitted to this conference. Special thanks to the Session Chairs and Paper Discussants for taking the extra time to make this conference a real success.

The last but not the least important acknowledgment goes to all those who submitted and presented their work at the conference. Their valuable research has highly contributed to the continuous success of the conference.

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BOOK OF CONFERENCE PROCEEDINGS

EMERGING TRENDS IN SUSTAINING TOURISM DEVELOPMENT IN SULTANATE OF OMAN: EVIDENCE FROM A'SHARQIYAH GOVERNORATES

Abdel Fattah, Fadi¹; Al-Omari, Omar¹; AL Alawi, Abrar²; AL Balushi, Nabeela¹

¹Management Departement. A'Sharqiyah University (ASU), Ibra, Oman

²Business Administration. Nizwa University (UNizwa), Nizwa, Oman

ABSTRACT

The tourism sector is considered a significant contributor to the Oman economy, with Omanis worldwide being proud of their tourism resources and benefiting from the resulting employment and economic opportunities. This research aims to investigate the factors affecting tourism development on the sustainable development tourism in Oman. The proposed study adopts a quantitative research approach. A questionnaire was developed based on a five-point Likert scale. All national and international visitors in Oman, particularly the North and South A'Sharqiyah region, are considered the population of this research. The sample of this study consist of 120 responses. The collected data analyzed using SPSS and Smart PLS3.2.8 software. The findings of this study indicate a positive association between all proposed relationships, including tourism infrastructure, social perception, governmental support, and sustainable tourism development, providing support for the developed hypotheses.

This research contributes to establishing the tourism sector in Oman. Besides, a handful of studies examined the variables affecting tourism and the development of the tourism industry in Oman. Consequently, this study will bridge the gap and expanding the knowledge. Also, this research will help policymakers, and relevant stakeholders design future strategies to attract foreign travelers to the Sultanate of Oman as a destination for future travel.

Keywords: Infrastructure; Society; Government; Tourism Development; Oman Vision; A'Sharqiyah Governates.

INTRODUCTION

The tourism industry has recently become one of the fastest-growing industries and a major sector in the world's largest economies (Ainin et al., 2020; Azmaiparashvili, 2018; Shafaei, 2016). Hence, the tourism market has shown tremendous and growing development in various parts of the world. This comes from the contribution of this industry to most global and local economies (Enzenbacher, 2019;

Zhang & Zhang, 2021). Researches have confirmed that the tourism industry has many economic and social benefits; it is one of the industries that create job opportunities, improves the standard of living, and remarkably increases individuals' income. The impact of tourism is not limited to the economic aspect only. Still, it extends to include the social element, as it enhances cultural exchange between tourists and residents and adds to society many historical and recreational advantages in addition to community's empowerment (Al Muqarshi et al., 2020; Atef & Balushi, 2016; Fakere & Ayoola, 2018; Zhang & Zhang, 2021).

The Sultanate of Oman is one of the countries in which the tourism industry is witnessing an increasing interest from the government to make it a major economic sector in its vision to diversify the economy (Khan & Krishnamurthy, 2016; Krishnamurthy, 2016). The tourism industry is considered among the sectors that have a great potential to contribute to raising the GDP of the Sultanate of Oman (Atef, 2018; Aulia, 2016; Azmaiparashvili, 2018; Choudri et al., 2016; Liat & Dent, 2020; Tarhini et al., 2019). Despite the great tourism potential of the Sultanate of Oman, the process of developing the tourism industry is not witnessing an accelerated growth (Henderson, 2016; Zaidan et al., 2017). The development of the tourism industry is witnessing many challenges and obstacles. To meet these challenges, the purpose of this initial paper is to identify the factors that affect the development of tourism, and among these factors that have a significant impact on the development of tourism are the infrastructure, society, and governmental support (Al-awadhi et al., 2019; Kapera, 2018; Kordić, 2018). The importance of this research comes through the role of the tourism industry in the Sultanate of Oman, which has become one of the industries that have begun to receive significant interest from the government as it is considered a promising sector that has a prosperous economic future in the country.

The tourism industry has taken a prominent place in the Sultanate of Oman's development plans to develop and enhance its activities to advance the development in the Sultanate of Oman. A limited number of researches dealt with the factors affecting tourism development in the Sultanate of Oman. Thus, this study will contribute to the existing knowledge by providing a better understanding of the critical factors impacts on sustainable tourism industry development and help policymakers and relevant stakeholders to design their future strategy to revitalize the tourism industry and attract foreign travelers to the Sultanate of Oman as a destination for future travel. It will also enhance domestic tourism, which will make Oman an integrated tourist destination.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

Tourism Infrastructure

The tourism industry was and still is one of the industries that is considered somewhat complex in its composition and which depends on various factors that have a direct impact on its development, and

among these factors is the infrastructure (KordiĆ, 2018; Qasim et al., 2019; Tosun, 2017). Many researchers have emphasized the importance of infrastructure as a primary and influential factor in developing the tourism industry, where infrastructure is represented in roads, transportation, water supply, dams, sewage, electricity lines, communication networks, ports, and airports (Brohman, 1996; Miloradov & Eidlina, 2018; Mustafa & Lanka, 2019). Besides, infrastructure affects the economic and social development of any country, as it contributes to creating the appropriate and eligible ground for the establishment and development of various economic sectors and industries, including the tourism industry (Martini et al., 2020; Qasim et al., 2019; Tariq, 2019). However, some significant services can be classified as the infrastructure that shapes the tourism industry and relies upon in developing the tourism sector in general such as, hotels ,resorts, transportation, recreational facilities, and other services that are directly related to tourism (Al-Ansi et al., 2020; Mihalic, 2018; Wondirad & Ewnetu, 2019). As long as the development in the tourism sector has mainly depended on the growth in infrastructure, as tourism destinations must have a high quality of infrastructure to ensure the success of the tourism sector (Al-Ansi et al., 2020; Qasim et al., 2019; Smith, 1994), and this must be done by balancing the costs that are spent to develop the infrastructure and the returns that come from tourism sector (Mihalic, 2018; Wondirad & Ewnetu, 2019).

Social Perception

A society is a group of people who share the same geographical area and are linked by common identity and interests (Wondirad & Ewnetu, 2019). When it comes to tourism, society constitutes a large part of the establishment of this industry. The Western world is the first to introduce the concept of social participation in the development plans for tourism, and that was as a way to participate in making fair decisions and rejecting the unjust ones in addition to the appropriate diversification of the benefits resulting from this sector on the society and the most important goal is to gain the satisfaction of the local community (Al Muqarshi et al., 2020; Dalziel, 2016; Mak & Cheung, 2017). Community participation in tourism development plans includes all interested and relevant parties in decision-making, most notably local citizens, planners and developers, entrepreneurs, and government officials (Frauman & Banks, 2020; Mak & Cheung, 2017; Simmons, 1994; Tosun, 2017). Based on the tourism literature, among the reasons that make the participation of the local community an essential factor in the development of tourism is that the tourism industry is one of the industries that rely on service activities to a large extent, and therefore community cooperation must support these activities (Bracht, 1990; Mak & Cheung, 2017; Rasoolimanesh et al., 2017; Tosun, 2017; Wondirad & Ewnetu, 2019). In a study conducted by Mak and Cheung (2017) on the development of tourism for local communities, the results indicated that tourism played a fundamental role in improving the quality of local life in

addition to its role in preserving all kinds of heritage in and being a source for providing many of business opportunities.

Governmental Support

The developed plans and regulated policies within any country government considered the base for tourism improvement (Enzenbacher, 2019; Godfrey, 1998; Kapera, 2018). For decades, the intervention of government plans has a fundamental influence on tourism development via the appropriate employment of the Ministry of Tourism (Atef, 2018; Khan & Krishnamurthy, 2016; Krishnamurthy, 2016). As well established plans will be helpful in tourism growth and sustainable tourism development (Enzenbacher, 2019; Harun et al., 2018). Political procedures are mainly stated and activated by the national government as the tourism sector is managed via formal initiation of ministries in Oman (Enzenbacher, 2019; Zuo et al., 2017). The government took the responsibility to operate the improvement activities via structured mechanisms and healthy authorization of municipalities and supportive policies and laws (Azmaiparashvili, 2018; Kapera, 2018; Zuo et al., 2017). Governmental policies and regulations also control other aspects. For instance, pertinent social, environmental, economic, and political factors to the development of the tourism industry are regulated by the government and produce related tourism services and products (Krishnamurthy, 2016; Zuo et al. Worldwide, sustainable tourism grasp governmental institutions interest. The role of governmental institutions' support is substantial in creating job opportunities and generating income from the investment in the tourism sector (Balletto et al., 2020; Krishnamurthy, 2016).

Sustainable Tourism Development

Development in the tourism sector setting refers to applying political protocols to induce the country's economic status from the diversified income sources (Abou-Shouk et al., 2021; Henderson, 2016; Ruiz-Real et al., 2020). One of the prioritized agenda by the government is to develop the tourism industry in all aspects, including economic benefit advancement, infrastructure enhancement, and rising local community living standards through an increased creation of employment opportunities (Hasani et al., 2016; Ka et al., 2016; You et al., 2020). Especially in underdeveloped countries, enriching the economic benefits is considered the critical factor that impacts citizens' positive perception and their significant support to enhance the development process in the tourism sector (Ka et al., 2016). Various empirical studies investigated citizen's attitude towards supporting the tourism development process and found that the potential influence of knowledge related to the tourist feelings may predict their attitude towards being part of improvement progress (Al-awadhi et al., 2019; Hasani et al., 2016; Shafaei, 2016; Zaidan et al., 2017). A significant association manifests between the citizens welcoming nature and tourism development (Hasani et al., 2016). Citizen's level of interaction and communication with

tourists could have a prominent role in explaining tourist willingness to visit tourist places as well as illustrating resident's attitude towards more active interaction with tourists, which in result impacts tourism development (Aulia, 2016; Hasani et al., 2016; Moghavvemi et al., 2017). Some scholars argue that residents directed positive attitude towards higher development of tourism sites and pertaining activities for targeted tourists serves as a benchmark to the degree of successful implementation of growth plans (Study et al., 2017; Zaidan et al., 2017).

Tourism Infrastructure & Social Perception

The infrastructure is represented in a set of services, including water supply, electricity, communications network, roads, and sewage channels (Fakere & Ayoola, 2018; Ghosh, 1998). Infrastructure is considered one of the essential needs of any society. The type and size of the necessary infrastructure vary according to the variety and nature of the community and the related activities embedded in it (Fakere & Ayoola, 2018; Giampiccoli, 2017). On the other hand, infrastructure has a direct impact on the quality of life, as sustainable infrastructure enhances and improves the quality of life of societies, it is also one of the main factors for reducing poverty in communities (Fakere & Ayoola, 2018; Giampiccoli, 2017; Kanwal et al., 2020).

Tourism Infrastructure & Governmental Support

The government has a fundamental role in the development process and in providing comprehensive infrastructure and facilitating licensing, planning, and maintaining the quality of the infrastructure to meet the needs of society and the economy in the long run (Dalziel, 2016; Kapera, 2018). The strength of government institutions in any country is considered a fundamental pillar for developing the infrastructure, as the role of these institutions lies in creating and shaping the economic and social climate to establish and improve the infrastructure and attract more investments for its development (Khan & Krishnamurthy, 2016; Krishnamurthy, 2016; Zuo et al., 2017).

Social Perception & Governmental Support

Given that tourists live and interact with citizens, local communities living in tourist destinations are affected by diverse cultural, environmental, and economic impacts. Thus, it highlights the importance of the local community engagement and consideration of their opinion and acceptance within the process of sustainable development planning (Dogru et al., 2021; Hasani et al., 2016; Moghavvemi et al., 2017). Previous literature review indicates that as much as locals relied on the economic benefits generated from tourism activities, the higher potential of citizens to provide governmental institutions with the needed support for the tourism development mechanism (Abou-Shouk et al., 2021; Hu et al., 2017; Mak & Cheung, 2017).

Tourism Infrastructure, Social Perception, Governmental Support & Sustainable Tourism Development

Governments benefit from tourism revenues in developing the basic infrastructure that has a direct impact on the quality of life of individuals in the community, such as hospitals, health clinics, building schools, establishing road networks, and other services that support the sustainable development of tourism (Al-Ansi et al., 2020; Balletto et al., 2020; Liat & Dent, 2020; Nunkoo & Ramkissoon, 2018). Furthermore, the availability of essential infrastructure services such as ports, transportation, energy supplies, and communication services are among the factors necessary to attract investments from the private sector to promote and revitalize the tourism industry and stimulate the private sector to provide and produce various services in the tourism industry (Dogru et al., 2021; Mak & Cheung, 2017; Mustafa & Lanka, 2019; Nunkoo & Ramkissoon, 2018).

Conceptual Framework

Based on previous studies, the infrastructural, social, and governmental aspects can influence sustainable tourism development. Stakeholder participation is also an essential strategy capable of solving infrastructural, social, and governmental support issues and affecting sustainable tourism development. A conceptual framework is built around the literature review above.

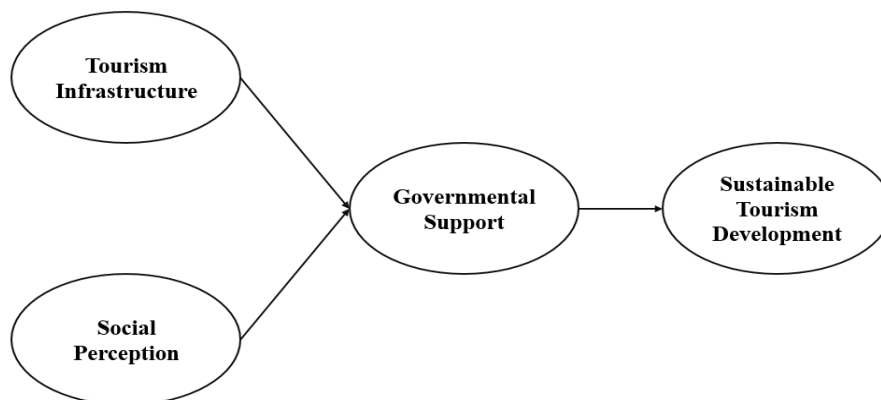


Figure 1. Conceptual Framework

**Developed based on an extensive review of the literature

HYPOTHESES

H1a: Positive relationship exists between tourism infrastructure and sustainable tourism development in Oman.

H1b: Positive relationship exists between tourism infrastructure and governmental support.

H1c: A positive relationship exists between tourism infrastructure and sustainable tourism development in Oman when mediated by governmental support.

H2a: Positive relationship exists between social perception and sustainable tourism development in Oman.

H2b: Positive relationship exists between social perception and governmental support

H2c: A positive relationship exists between social perception and sustainable tourism development in Oman when mediated by governmental support.

H3: Positive relationship exists between government support and sustainable tourism development in Oman.

METHODS

This study follows a quantitative research approach to collect the primary data. The authors employed a questionnaire as a data collection instrument to measure nationals and internationals perceptions in various governorates of the Sultanate of Oman. According to the five-point Likert scale, the questionnaire is designed, which examine the level of agreement from 1= strongly disagree to 5= strongly agree. Afterward, a pilot study was conducted using a sub-sample of 3 experts and five participants. The adopted measurements source are presented in Table 1. The survey questions were provided in English and Arabic translation, then distributed online through electronic platforms including WhatsApp and Twitter. A convenience sampling technique will be utilized using the random sampling method. A Sample consist of 120 participants was received. All the collected data will be analyzed using SPSS software for data screening and demographic analysis and PLS-SEM to investigate the structural model significance.

Variable	No. of Items	Source
Tourism infrastructure	8	(Gupta & Singh, 2014)
Social perception	7	(Chen & Chen, 2010; Homsud, 2015)
Governmental support	8	(Bennett et al., 2012)
Sustainable tourism development	4	(Karuhanga, 2010)

Table 1. Measurement Source

FINDINGS

Participant's characteristics are shown in Table 2. The core respondents were Omani females (67.5%), within the age range of 20 to 29. Most of the respondents receive a monthly salary of less than 500 OMR. The participants expressed that mostly self-organized and wild trip is their preferred trip with 27.5% and 25%. Additionally, the primary reason behind choosing a tourism destination is the amenities and entertainment as per the participant's perspective.

Participants		Frequency	Percentage
Gender	Female	81	67.5
	Male	39	32.5
Age	Less than 20	9	7.5
	20-29	65	54.2
	30-39	28	23.3
	40- 49	12	10.0
	50-59	4	3.3
	60 and above	2	1.7
Nationality	Omani	10	8.3
	Non-Omani	110	91.7
Monthly Salary	Less than 500	65	54.2
	500 - 999	27	22.5
	1000 - 1999	27	22.5
	More than 3000	1	.8
Trip Preferred	Business Travel	4	3.3
	Cruise	26	21.7
	Package tour	27	22.5
	Self-organized	33	27.5
	Wild trip	30	25.0
Infrastructure attributes influence the destination selection	Accessibility	11	9.2
	Accommodation	14	11.7
	Amenities	40	33.3
	Entertainment	33	27.5
	Infrastructure attractions	22	18.3

Table 2. The Participants Characteristics

Structural Model Assessment

The measurement adopted in this study were assessed by investigating their reliability and validity. Factor loadings of all measures were above the suggested value of 0.7 by Hair et al. (2017), and thereby providing statistical evidence of an acceptable range of values, as shown in Table 3. to evaluate variables reliability, a test of Cronbach's alpha and rho_A, as well as composite reliability was implemented as recommended by Stormer and Kline (1999). The findings indicate an acceptable level of values higher than threshold 0.7. The average variance extracted was more elevated than the suggested value (0.5) by Hair et al. (2017). To assess the construct's discriminant validity, the square root of average variance extracted was presented in Table 3. Showing higher correlation values of the same column than others which evidence a discriminant validity as presented in Table 4. Table 5 demonstrates correlation values lower than assumed values (0.85) by Hair et al. (2017) when reporting Heterotrait-Monotrait Ratio (HTMT), as shown in Table 5.

Variable	Item	Standardized loadings	α	rho_A	CR	AVE
Tourism Infrastructure	TI01	0.702	0.903	0.907	0.922	0.598
	TI02	0.719				
	TI03	0.783				
	TI04	0.744				
	TI05	0.777				
	TI06	0.768				
	TI07	0.864				
	TI08	0.816				
Social Perception	SP01	0.755	0.913	0.917	0.93	0.656
	SP02	0.773				
	SP03	0.793				
	SP04	0.831				
	SP05	0.797				
	SP06	0.879				
	SP07	0.835				
Governmental Support	GS01	0.845	0.951	0.952	0.959	0.745
	GS02	0.898				
	GS03	0.901				
	GS04	0.814				
	GS05	0.871				
	GS06	0.878				
	GS07	0.869				
	GS08	0.825				
Sustainable Tourism Development	STD01	0.756	0.725	0.757	0.827	0.546
	STD02	0.728				
	STD03	0.819				
	STD04	0.643				

Note: TI: Tourism Infrastructure; SP: Social Perception; GS: Governmental Support; STD: Sustainable Tourism Development; α : Cronbach's Alpha; CR: Composite Reliability; AVE: Average Variance Extracted.

Table 3. Measurement Reliability and Validity

	GS	SP	STD	TI
GS	0.863			
SP	0.486	0.81		
STD	0.690	0.494	0.739	
TI	0.698	0.490	0.594	0.773

Note: TI: Tourism Infrastructure; SP: Social Perception; GS: Governmental Support; STD: Sustainable Tourism Development

Table 4. Fonell-Larcker Critirion

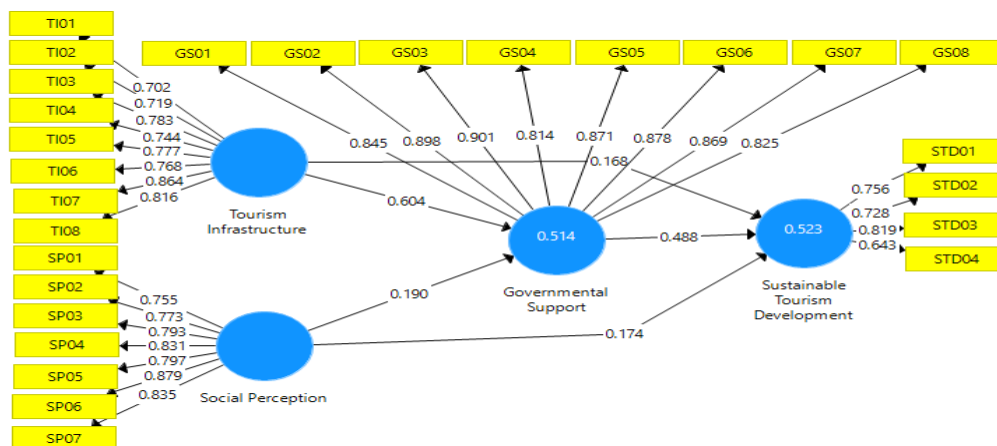
	GS	SP	STD	TI
GS				
SP	0.510			
STD	0.799	0.598		
TI	0.750	0.531	0.713	

Note: TI: Tourism Infrastructure; SP: Social Perception; GS: Governmental Support; STD: Sustainable Tourism Development

Table 5. Heterotrait-Monotrait Ratio

Analysis of Model Structure

Considering the results of the PLS Algorithm presented in Figure 2. The path coefficient results indicate a fit at the significance level for future analysis. Accordingly, a bootstrapping test of 5000 subsamples was applied to investigate the significance of model structure and examine the direct association proposed between the constructs. The hypotheses test demonstrate positive direct relationship between tourism infrastructure and social perception with governmental support ($\beta = 0.604$, $t\text{-value} = 10.273$, $P = 0.000$) and ($\beta = 0.190$, $t\text{-value} = 2.558$, $P = 0.011$) respectively, demonstrating a significance support for H1b and H2b. Moreover, positive association found between the direct relationship of tourism infrastructure, social perception, and governmental support with sustainable tourism development ($\beta = 0.464$, $t\text{-value} = 6.899$, $P = 0.000$), ($\beta = 0.267$, $t\text{-value} = 3.820$, $P = 0.000$), and ($\beta = 0.488$, $t\text{-value} = 4.635$, $P = 0.000$) respectively, providing support for H1a, H2a, and H3.



Note: TI: Tourism Infrastructure; SP: Social Perception; GS: Governmental Support; STD: Sustainable Tourism Development

Figure 2. PLS Algorithm

	Hypothesis Path	Direct Effect	β -value	T-Value	P-Values	Decision
H1a	TI -> STD	0.464	0.464	6.899	0.000	Supported
H1b	TI -> GS	0.604	0.604	10.273	0.000	Supported
H2a	SP -> STD	0.267	0.267	3.820	0.000	Supported
H2b	SP -> GS	0.190	0.190	2.558	0.011	Supported
H3	GS -> STD	0.488	0.488	4.635	0.000	Supported

Note: TI: Tourism Infrastructure; SP: Social Perception; GS: Governmental Support; STD: Sustainable Tourism Development

Table 6. Hypothesis Test

Mediate Effect

To examine the mediate influence of governmental support between tourism infrastructure, social perception, and sustainable tourism development, a 5000 subsample-bootstrapping test was performed as assumed by Streukens and Leroi-Werelds (2016). The findings reported in Table 7 demonstrate the significance and positive mediate effect of governmental support between tourism infrastructure and sustainable tourism development. Also, the relationship between social perception and sustainable tourism development is positively mediated by governmental support.

	Hypothesis Path	Specific Indirect Effect	β -value	T-Value	P-Values	Decision
H1c	TI -> GS -> STD	0.295	0.295	4.308	0.000	Supported
H2c	SP -> GS -> STD	0.093	0.093	2.014	0.044	Supported

Note: TI: Tourism Infrastructure; SP: Social Perception; GS: Governmental Support; STD: Sustainable Tourism Development

Table 7. Mediation Analysis

DISCUSSION

Tourism is an essential source for global economic development and one of the most critical sectors that will improve Oman's competitive position in adopting the Oman 2040 vision to diversify the local economy. Therefore, to develop the tourism sector, it is essential to identify the factors affecting tourism development in the first place. Hence, the researchers examined the indirect effect of the tourism infrastructure and the societal aspect mediated by governmental support. The results attained that sustainable tourism development is positively affected by tourism infrastructure and social perception. Moreover, several researchers who conclude that the development of tourism is mainly affected by the social perception and the availability of the necessary infrastructure have confirmed this result (Jovanović, 2016; Kanwal et al., 2020; Mustafa & Lanka, 2019; Nassar et al., 2015). Also, considering the significant mediate effect of governmental support revealed in this study. These results are supported by the need for community participation and governmental support (Giampiccoli, 2017; Wondirad & Ewnetu, 2019).

CONCLUSION

Tourism is considered one of the main sectors contributing to economic and social development and its essential role in promoting environmental, historical, and cultural aspects and the inherent values of the Sultanate of Oman. Hence, Tourism development has become a significant responsibility which the government seeks to take upon itself. Besides, tourism development becomes one of Oman's 2040 vision priorities, aiming to diversify the local economy by relying on non-oil sectors such as the tourism sector. In a related context, several factors affect the development of tourism, including the

infrastructure, as it plays a significant role in providing an appropriate and eligible ground for establishing and developing various economic sectors. Moreover, Government support and community participation are among the factors that directly affect the development of tourism. Given the increasing importance of tourism development, this research contributes to shedding light on important aspects of tourism development that would provide policymakers with a strong scientific ground for making future development plans and decisions related to the tourism sector and maintaining sustainable tourism development terms.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Despite the critical results revealed by this study, this did not prevent the emergence of some limitations. The results generalization is restricted due to the application of study investigation within only the area of Ash Sharqiyah governance. Also, the use of the random sampling approach may not be considered very accurate in representing the study population. In light of some restrictions that restrict this study, this enables us to shed light on recommendations for future studies. Therefore, more qualitative research can be conducted on the factors affecting tourism development in the Sultanate of Oman. Moreover, Future researchers should be encouraged to conduct a comparative study to take this research and compare the results that will help policymakers develop country policies. It is also recommended that future studies could be focused on other governance across Oman, which may justify generalizing the findings.

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THE IMPACT OF PERCEIVED SERVICE QUALITY ON CUSTOMERS SATISFACTION AND RETENTION: THE CASE OF OMAN AIR

Abdel Fattah, Fadi¹; Dahleez, Khalid¹; AL Alawi, Abrar²

¹Management. A'Sharqiyah University (ASU), Ibra, Oman

²Business Administration. Nizwa University (UNizwa), Nizwa, Oman

ABSTRACT

This study aims to examine the antecedents influencing customer satisfaction and retention in Oman air transportation. The study model was developed in light of an extensive literature review that has emphasized the effect of quality of services, customer expectations, and perceived value on customer retention with an intervening effect of customer satisfaction. A convenient sampling method was used to collect quantitative data from 255 respondents by employing an online-administrated questionnaire. Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to test the proposed relationship.

The findings of this study revealed that customer retention is significantly and directly impacted by service quality, perceived value, and customer satisfaction. The research outcomes indicate that providing customers with high service quality is necessary to enrich customer perceived value and meet customers' expectations. This paper contributes to the limited literature relevant to service quality and its impact on customer satisfaction and retention, focusing on Oman's airline industry. This study bridges the knowledge gap between past and current business scenarios during the COVID-19 pandemic by providing managers and scholars with a fresh understanding of the main factors that reflect customer satisfaction and retention. A set of recommendations and suggestions are provided for professionals and policymakers to encourage satisfaction and retention of different customer segments within the airline industry.

Keywords: Airline, Customer satisfaction, Expectations, Service quality, Omani air, Retention, Perceived Value, COVID-19

INTRODUCTION

The service sector experienced remarkable growth over the past decades, where its overall contribution to the GNP notably exceeds the combination of all other sector's contributions (Dalluay *et al.*, 2017). However, advanced worldwide growth in the air transportation sector has provided reoriented airline services and developed their activities and programs abundantly (Dahlgaard-Park, 2015; Saleem *et al.*, 2017).

More recently, the structure of airlines encountered by an extensive alteration due to the deregulation allows private companies to enter the market and set prices under consideration of specific safety and security requirements (Hapsari *et al.*, 2016). Therefore, a dramatic revolution emerged in the airline sector, leading to intense competition in the marketplace (Jiang and Zhang, 2016; Saleem *et al.*, 2017). Meanwhile, the novel emergence of coronavirus (COVID-19) pandemic affected the global market conditions, especially airline industry, due to the forced lockdown and movement restriction cross-countries that the World Health Organization recommended and government over the world regulated. The speedy viral transmission remarkably reflected the air industry operations, which shrunk the airline market (Hotle and Mumbower, 2021; Maneenop and Kotcharin, 2020; Yu *et al.*, 2021).

Moreover, the quality of services in the airline industry as part of the overall intangible service industry is the core aspect that determines business revenues, profits, and market share (AbdelFattah *et al.*, 2020; Baker, 2013; Bruno, 2019; Dalluay *et al.*, 2017). Customer satisfaction is manifested at the heart of perceived service quality. Besides, Sukati and AL Mashani (2019) explain that customer satisfaction and retention derive from customer expectations consistent with excellent service. From this perspective, Oman air presents the national airline in Oman's (Shah *et al.*, 2020). Also, Oman airline collaborates with various Asian, African, and European airlines; these collaborations aim to offer a greater level of quality with a unique and diverse collection of choices for the passengers (Sukati and AL Mashani, 2019).

While more researches have been conducted on the customer perspective of airlines in Asian and European countries, there is an insufficient number of studies published on the perspective of Omani airline customers. In this respect, the objective of this study is twofold. First, to identify and examine the antecedents influencing customer satisfaction in Oman air transportation. Second, investigate the significant role of high performed services in maintaining customer retention in Omani Airlines through an empirical investigation of the developed conceptual framework. Thus, due to the growing need to conduct a study in this area, this paper intends initially to contribute to the limited literature relevant to service quality impacts on customer satisfaction and retention, focusing on Oman Air. Although performing services has changed in light of the high pressure of competition, this study will bridge the knowledge gap between past business scenarios and current scenarios by providing managers and scholars with a fresh understanding of the main factors that reflect customer satisfaction and retention. Lastly, recommendations and suggestions are provided for professionals and policymakers to encourage satisfaction and retention of different customer segments within the airline industry.

LITERATURE REVIEW

Service Quality

Parasuraman *et al.* (1985) have articulated that the concept of quality is elusive and not easily interpreted, given that consumers have different perspectives of quality definition. For instance, quality could be depicted by diverse customer segments like luxury, weight, shininess, and goodness. Also, quality is defined as the consistency of tangible or intangible products with customer requirements (Dahleez, 2015; Gronroos, 1984; Lewis and Mitchell, 1990; Parasuraman *et al.*, 1985; Seth *et al.*, 2005). Moreover, service quality is measured and appraised relative to the overall delivered level of service that matches the actual customer expectations (Lewis and Mitchell, 1990; Zeithaml *et al.*, 1996). Pabedinskaitė and Akstinaitė (2014) and Suki (2014) demonstrate that the difficulty of evaluating the quality of services in comparison to the quality of goods could be illustrated by the characteristics that differentiate services from goods, as goods are attributed by the tangible evidence that enables the customer to judge easily through color, style, and packaging. Parasuraman *et al.* (1993), Seth *et al.* (2005), and Suki (2014) view five dimensions subject to the SERVQUAL scale. However, in airline settings, tangibles are portrayed by the physical appearance of surrounding facilities, equipment, machines, interior design, and communications materials that formulate the airline firm's general atmosphere. The airline services performance across the world has been intensively affected by the broad spread of the COVID-19 epidemic, as the pandemic crisis forced airline managers to reduce the number of employees due to the massive decline in airline stock prices and sales (Brandtner *et al.*, 2021; Jung *et al.*, 2021). Besides, the underlying circumstances of pandemic prevalence impose new creation of services that several service providers' agencies must provide to implement the government recommended precautionary measures (Hotle and Mumbower, 2021; Maneenop and Kotcharin, 2020).

Customer Expectations

Customer expectations have been extensively studied with customer satisfaction and retention concerning its ultimate role in assessing service quality (Clow *et al.*, 1997; Parasuraman *et al.*, 1993). However, customer expectation is interpreted as a prediction that customer made of what he/she wishes to receive in exchange for the paid money (Parasuraman *et al.*, 1985; Zeithaml *et al.*, 1993). Specifically, customer desire for a particular level of quality compared to the actual services performed (Zeithaml *et al.*, 1993). Söderlund (1998) suggests that to arrive at a delighted customer, a well-performed service that fulfills clients' needs, wants, and desires consistently aligns with their believed expectation of what a firm could offer. Clow *et al.* (1997) disconfirmation theory states that the experienced service's customer satisfaction is attained if the performed service level meets or exceeds customer expectations. Therefore, customer expectation serves as a central measurement of

service quality that is immensely utilized (Clow *et al.*, 1997; Erdil and Yildiz, 2011). The World Health Organization declared a set of precautionary measures as a response to the COVID-19 epidemic outbreak. Around the world, the pandemic spread disrupts the airline industry-related services and causes a tremendous loss in related business. As such, customers expect airline firms to react and operate in regard to COVID-19 pandemic actively spread conditions (Maneenop and Kotcharin, 2020; Yu *et al.*, 2021).

Perceived Value

Perceived value explained as customer appraisal of the extent to which utility of product approached their perception (Chen, 2008; Zeithaml *et al.*, 1996) based on a comparison of what they received and given from the performed service (Caruana *et al.*, 2000; Chahal and Kumari, 2012; Zeithaml *et al.*, 1996). Gruen *et al.* (2017) utility theory state that a bundle of product characteristics delivers a level of quality that creates a specific value to the customer more significant than the disutility represented by the paid money. Furthermore, People differ in their evaluation of the perceived value due to their identification differences. Value is commonly known as the range between perceived quality and price. To remain competitive, airlines ought to provide high standards of attention to their customers coupled with an exceptional experience that delivers hedonic and utilitarian value (Kassim and A. Abdullah, 2010; Levesque and McDougall, 2009). Hussain *et al.* (2015) demonstrate that perceived hedonic value lies in the standards of quality offered by the airline firm. Evidence from research conducted in the hospitality industry argues that the impact of covid-19 on firms performance imposed severe planning and preparation on how to deliver the value expected by the customers of goods and/or services within the restricted and limited operations applicable under the situation of COVID-19 epidemic (Brandtner *et al.*, 2021; Yu *et al.*, 2021).

The Mediation Role of Customer Satisfaction

Customer satisfaction is one of the fundamental elements in marketing (Baker, 2013; Kim and Lee, 2011). Customer satisfaction emerged as a critical field in rendering customer needs, wants, and desires (Baker, 2013; Kim and Lee, 2011). Moreover, Customer satisfaction is illustrated as reactional behavior to the fulfillment response of customers (Baker, 2013; Skogland and Siguaw, 2004) that generates an overall judgment of the product or service characteristics (Baker, 2013). Barsky and Labagh (1992) suggest that customer satisfaction is the pleasurable emotions delivered from product outcomes. Gan (2008) defines customer satisfaction as an influential factor that leads to high customer retention. However, several theories interpret the concept of customer satisfaction (Churchill and Surprenant, 1982; Ekinici *et al.*, 2008). The generic customer satisfaction is drawn from multidimensional constructs within the business (Arif *et al.*, 2013; Bruno, 2019). The recent viral outbreak and pertinent policies that limit the availability of various services have notably affected customers' experience and satisfaction

with the received services (Brandtner *et al.*, 2021; Efthymiou *et al.*, 2021; Khan *et al.*, 2021). For instance, customer desire and demand witness alteration in terms of overall firm physical appearance and level of cleanliness that affect their satisfaction and decision regarding the choice of service providers (Brandtner *et al.*, 2021; Yu *et al.*, 2021).

Customer Retention

Customer retention is a vital phenomenon in marketing research (Geraldine, 2013; Saha and Theingi, 2009). Several researchers define customer retention as relationship continuity between a business owner or providers and their customers (Olsen, 2002; Saleem *et al.*, 2017). Additionally, customer retention is known as customer attitude compliance with a repeatedly re-purchase product within the business company (Jiang and Zhang, 2016; Ranaweera and Prabhu, 2003; Saha and Theingi, 2009). However, retention is regarded as the impact of cumulative satisfaction (Bigné *et al.*, 2015; Dalluay *et al.*, 2017). Jiang and Zhang (2016) highlight the urgent need to render high-quality services aligned with customer expectations. Customer retention is a critical factor to sustain a firm's survival (Geraldine, 2013; Saha and Theingi, 2009). Therefore, firms strive to embark on several marketing strategies to enhance their market share and profit (Ladhari, 2008) by emphasizing developing customer retention programs (Jiang and Zhang, 2016). The planned management against and under different conditions the firm faces to deliver valuable products and services is the key to overcome the pandemic crisis. The way the firm reacts to COVID-19 pandemic outbreaks and deals with this situation influences customer satisfaction and retention (Efthymiou *et al.*, 2021; Hotle and Mumbower, 2021; Khan *et al.*, 2021; Maneenop and Kotcharin, 2020).

Research framework and Hypothesis Development

Figure 1 presents the proposed conceptual model concerning an extensive review of the literature.

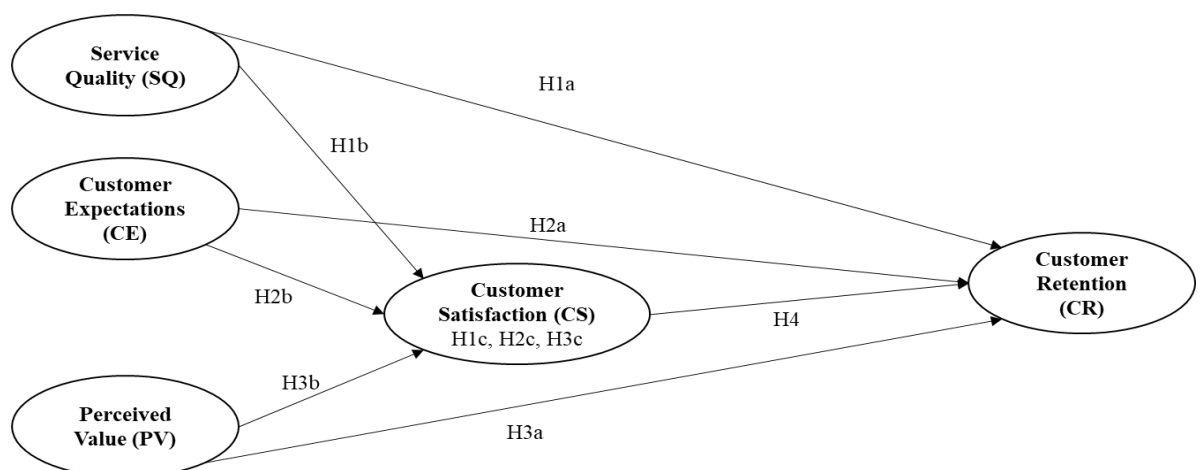


Fig. 1. *Proposed Research Model.*

Note: **SQ**: Service Quality; **CE**: Customer Expectations; **PV**: Perceived Value; **CS**: Customer satisfaction;

CR: Customer Retention

Based on the above discussion, we constructed the following hypotheses:

H1a: *Service quality has a positive and significant influence on customer retention in Omani airlines.*

H1b: *Service quality has a positive and significant influence on customer satisfaction in Omani airlines.*

H1c: *Service quality has a positive and significant influence on customer retention in Omani airlines when customer satisfaction plays a mediating role.*

H2a: *Customer expectation has a positive and significant influence on customer retention in Omani airlines*

H2b: *Customer expectation has a positive and significant influence on customer satisfaction in Omani airlines*

H2c: *Customer expectation has a positive and significant influence on customer retention in Omani airlines when customer satisfaction plays a mediating role.*

H3a: *Perceived value has a positive and significant influence on customer retention in Omani airlines.*

H3b: *Perceived value has a positive and significant influence on customer satisfaction in Omani airlines.*

H3c: *Perceived value has a positive and significant influence on customer retention in Omani airlines when customer satisfaction plays a mediating role.*

H4: *Customer satisfaction has a positive and significant influence on customer retention in Omani airlines.*

METHODOLOGY

This paper applies a quantitative research approach. A structured questionnaire was employed as a primary instrument to collect data. An online administrated survey was utilized to collect data, using a random sampling approach. The study model examines five primary constructs assessed to measure the quality experienced by Oman airline services. All measurements utilized a five-point Likert scale ranges from 1= strongly disagree to 5= strongly agree. The items of service quality and customer expectations adapted from Saha and Theingi (2009) and Fodness and Murray (2007), respectively. Perceived value items were adopted from Gruen *et al.* (2017) and Chahal and Kumari (2012). Customer satisfaction items were adopted from Sukati and AL Mashani (2019). Finally, customer retention to Oman airline items derived from Batouei *et al.* (2019) and Bigné *et al.* (2015).

A pilot study consists of ten recent Oman airline passengers was conducted to validate the questionnaire. The study population was all customers who have experienced Oman airline services and traveled in the past few years. The questionnaire was provided in English and Arabic translation versions. Further, the survey was distributed using various social media instruments such as WhatsApp, Twitter, and Facebook. A total of 255 respondents out of 270 received, indicating an overall valid response rate of 94.4%, as questionnaires with missing values were excluded from further analysis. The collected data were analyzed by employing IBM SPSS Statistics version 23.0 to obtain descriptive statistics on customer's demographic characteristics. Smart-PLS software version 3.0 is used for further analyses. Multiple statistical tests were made to confirm the data consistency within the structural model before applying PLS-SEM analysis, such as data screening tests.

FINDINGS

Table 1 represents respondent's demographic data and travel-based data. The majority of the collected sample was female (59%). In terms of marital status, most of the travelers were married (61.2%).

Measure	Category	Frequency	%
Gender	Female	151	59.2
	Male	104	40.8
Marital status	Married	156	61.2
	Single	99	38.8
Frequency of using airline in a year	1–3 times/year	183	71.8
	4–6 times/year	39	15.3
	7–8 times/year	20	7.8
	More than eight times/year	13	5.1
	Airline services	57	22.4
The primary reason for choosing the airline	Destination	28	11.0
	Flight schedule	59	23.1
	Other	30	11.8
	Price	32	12.5
	Safety and security	49	19.2
Monthly salary (OR)	1000 - 1999	81	31.8
	2000 – 2999	34	13.3
	500 - 999	72	28.2
	Less than 500	51	20.0
	More than 3000	17	6.7

Table 1. *Respondents Profile*

The majority (71.8%) of passengers report a frequency of using airline services in the range of 1-3 times within a year. Furthermore, flight schedule, airline services, and safety and security scores were closed with 23.1%, 22.4%, and 19.2%, respectively. Only 31.8% of the airline customers obtain a monthly income range between 1000- 1999 OR.

Analysis of reflective measurement model

According to Ringle *et al.*'s (2020) guidelines, all the study model measurements were evaluated by examining their reliability and validity. Findings showed that factor loading for all reflective items was above the recommended value of 0.7, ranging from 7.5 to 9.4, evidence of a statistically significant score of acceptable values, as reported in Table 2. According to Stormer and Kline (1999), to assess constructs Cronbach's alpha, rho_A, and composite reliability (CR), a construct reliability test was applied. The results demonstrate an acceptable critical value higher than the cut-off value of 0.7. The average variance extracted (AVE) of latent construct ranges from 0.615 to 0.866, which is greater than the suggested criteria of (0.5) (Sarstedt *et al.*, 2017).

Variable	Item	Standardized loadings	α	rho_A	CR	AVE
Service Quality (SQ)	SQ01	0.759	0.923	0.925	0.942	0.764
	SQ02	0.854				
	SQ03	0.864				
	SQ04	0.869				
	SQ05	0.83				
Customer Expectation (CE)	CE01	0.853	0.922	0.923	0.951	0.866
	CE02	0.86				
	CE03	0.871				
	CE04	0.913				
	CE05	0.873				
Perceived Value (PV)	PV01	0.839	0.911	0.912	0.934	0.739
	PV02	0.904				
	PV03	0.921				
	PV04	0.872				
Customer Satisfaction (CS)	CS01	0.852	0.907	0.910	0.935	0.783
	CS02	0.857				
	CS03	0.825				
	CS04	0.899				
	CS05	0.864				
Customer Retention (CR)	CR01	0.924	0.893	0.917	0.917	0.615
	CR02	0.924				
	CR03	0.944				

Note SQ: service quality, CE: customer expectation, and PV: perceived value, CS: customer satisfaction, CR: customer retention.; α : Cronbach's A; CR: Composite Reliability; AVE: Average Variance Extracted.

Table 2. *Reliability and Validity of the Measurement*

Moreover, the discriminant validity of the model was assessed by conducting a cross-loading test. Cross-loading values presented in Table 2 indicate that all items of reflective measurement demonstrate a satisfactory level of discriminant validity that met the standards of cross-loading criteria in the model. Reliability and validity results are shown in Table 2. Further, AVE's square roots are reported in Table 3 to evaluate the discriminant validity, demonstrating values higher than the correlation values in the same column, thus manifest a discriminant validity as portrayed in Table 3.

Variable	CE	CR	CS	PV	SQ
CE	0.874				
CR	0.647	0.930			
CS	0.753	0.76	0.860		
PV	0.678	0.683	0.747	0.885	
SQ	0.778	0.671	0.724	0.608	0.784

Note: Highlighted values in bold are Square root of AVE. SQ: service quality, CE: customer expectation, and PV: perceived value, CS: customer satisfaction, CR: customer retention.

Table 3. *Fornell-Larcker Criterion*

Also, the Heterotrait-Monotrait Ratio (HTMT) of all correlations was less than the threshold construct correlation level (0.85) estimated by Hair *et al.* (2017), indicating no potential problem in the values of discriminant validity, as presented in Table 4.

Variable	CE	CR	CS	PV	SQ
CE					
CR	0.698				
CS	0.819	0.828			
PV	0.738	0.745	0.819		
SQ	0.858	0.712	0.774	0.633	

Note SQ: service quality, CE: customer expectation, and PV: perceived value, CS: customer satisfaction, CR: customer retention.

Table 4. *Heterotrait-Monotrait Ratio (HTMT)*

Analysis of structural model

As shown in Fig. 2, the path coefficient scores demonstrate a significant fit for further statistical data analysis; thus, a bootstrapping of 5000 subsamples was conducted to examine the structural model significance and test the direct relationship of the proposed hypotheses shown in Fig. 3 and Table 5. However, the statistical findings demonstrate direct significant and positive relationship exhibited between service quality and customer retention ($\beta = 0.224$, $t\text{-value} = 4.215$, $P = 0.000$), indicating a support for H1a. The hypothesis testing of the relationship between service quality and customer satisfaction shows a positive direct association ($\beta = 0.251$, $t\text{-value} = 3.491$, $P = 0.000$), supporting H1b. Whereas, the relationship between customer expectations and customer retention ($\beta = -0.026$, $t\text{-value} = 0.951$, $P = 0.342$) presents a negative relationship, which implies that H2a is not supported. Interestingly, significance and positive direct relationship exist between customer expectation and customer retention ($\beta = 0.270$, $t\text{-value} = 3.426$, $P = 0.001$) supporting H2b. Also, direct significance and positive influence was found between perceived value and customer retention ($\beta = 0.245$, $t\text{-value} = 6.447$, $P = 0.000$), confirming a strong support for H3a. Likewise, significance and positive evidence in the association between perceived value and customer satisfaction ($\beta = 0.419$, $t\text{-value} = 7.681$, $P = 0.000$), thereby H3b is supported. In the same way, customer satisfaction association with customer retention statistically significance ($\beta = 0.439$, $t\text{-value} = 5.157$, $P = 0.000$), thus H4 is also supported.

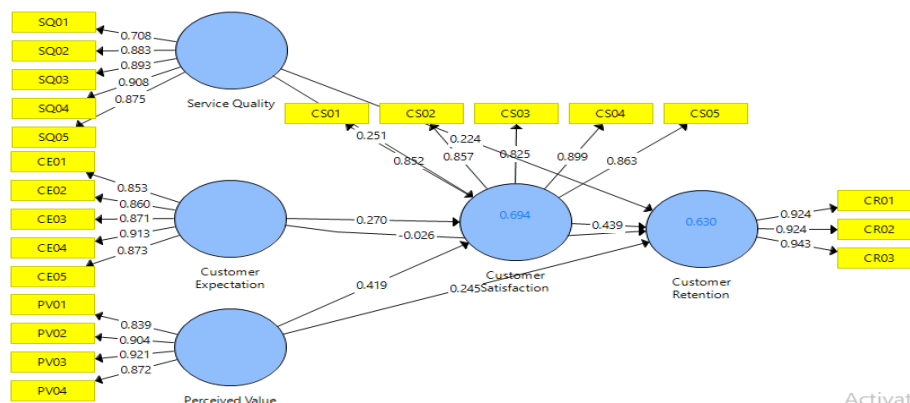


Fig. 2. *Structural model assessment*

Hypothesis	Hypothesis Path	Direct Effect	β -value	t-value	P-value	Decision
H1a	SQ -> CR	0.334	0.224	4.215	0.000	Supported
H1b	SQ -> CS	0.251	0.251	3.491	0.000	Supported
H2a	CE -> CR	0.092	-0.026	0.951	0.342	Not supported
H2b	CE -> CS	0.270	0.270	3.426	0.001	Supported
H3a	PV -> CR	0.429	0.245	6.447	0.000	Supported
H3b	PV -> CS	0.419	0.419	7.681	0.000	Supported
H4	CS -> CR	0.439	0.439	5.157	0.000	Supported

Note SQ: service quality, CE: customer expectation, and PV: perceived value, CS: customer satisfaction, CR: customer retention.

Table 5. *Hypothesis assessment*

Mediation analysis

As shown in Table 6, the researchers performed a two-step bootstrapping test using PLS-SEM as recommended by Preacher and Hayes (2008) to test the mediate effect of customer satisfaction. Based on Streukens and Leroi-Werelds (2016) suggestion, a bias correction approach was also employed. Customer satisfaction's effect was found significantly in the relationship between service quality and customer retention, demonstrating a partial mediation existence. Therefore, H1c is supported. Second, while the direct association between customer expectation and customer retention attained insignificance, customer expectation strongly influenced customer retention when customer satisfaction played a mediate role, indicating an entire mediation, supporting H2c. Third, partial mediation effect of customer satisfaction significantly and positively exists between perceived value and customer retention, providing support for H3c.

Hypothesis	Mediation Path	Specific Indirect Effects	T-value	p-value	Total Effect	Decision
H1c	SQ -> CS -> CR	0.110	2.802	0.005	0.150	Supported
H2c	CE -> CS -> CR	0.119	3.021	0.003	0.134	Supported
H3c	PV -> CS -> CR	0.184	3.947	0.000	0.265	Supported

Note SQ: service quality, CE: customer expectation, and PV: perceived value, CS: customer satisfaction, CR: customer retention.

Table 6. *Mediation analysis*

DISCUSSION

The airline industry is widely diverse in conjunction with the diversification of business structure and the characteristics of multiple operations. Nowadays, better-educated passengers formulate a challenge for service providers to align customer expected standard of services. In the same vein, service quality and perceived value are sought as prominent, influential factors that yield customer satisfaction, which drives their retention. The researchers examined the indirect effect of quality of services, customer expectation, and the value received on customer retention mediated by customer satisfaction. Moreover, the study outcomes attained that customer retention is significantly influenced by factors mentioned in the proposed conceptual model, supporting the suggested hypothesis (H1a,

H3a, and H4), except customer expectations, which was statistically significant insignificance (H2a). Likewise, previous researchers have confirmed that customers are more likely to remain in a situation provoked by the quality of services and the value perceived from the experienced service (Law, 2019; Shin *et al.*, 2019; Tahanisaz, 2020).

On the other hand, service quality, customer expectation, and perceived value significantly influenced customer satisfaction, providing valid support for H1b, H2b, and H3b. The revealed results also support prior studies conducted by Lee and Cheng (2018). They summarize that customer satisfaction is enhanced by better implementing quality-based strategies that boost customers' experience and fulfil their desire. Additionally, the mediate influence of customer satisfaction between antecedent variables and customer retention significantly supported (H1c, H2c, and H3c). Which is consistent with prior studies conducted in the hospitality industry, illustrating customer's willingness to re-purchase product and/or service is embedded and emanated from their sense of satisfaction (AbdelFattah *et al.*, 2021; Chen *et al.*, 2019; Gursoy, 2019; Ha and Lee, 2018; Tsang and Hsu, 2011). However, the study revealed that customer satisfaction and retention are not solely obtained from the quality of services but the trade-off between customer actual perceived value and quality and standards. These findings are consistent with other previous studies such as Erdil and Yildiz (2011) and Batouei *et al.* (2019).

THEORETICAL AND PRACTICAL IMPLICATIONS

The proposed conceptual model in our study is among the rare studies that predict the critical mediating effect of customer satisfaction on the relationships between service quality, customer expectation, perceived value, and customer retention, focusing on the case on Oman air. It improves our understanding of the key role of customer satisfaction in improving customer retention in aviation industry in the Gulf region. In respect of hospitality and tourism industries, this study sheds light on three antecedents that determine customer retention mediated by their satisfaction, which helps deliver a precise understanding of obstruction factors that limit these corporate successes.

From practical perspectives, this study provides marketing researchers, managers, and practitioners with insights into the primary determinant that confined customer satisfaction by providing an improved strategy to guarantee retention of various customer segments. Given the rapid improvement in the tourism sector, these findings will better provide policymakers with valuable strategies to manage and advance the quality of Oman airline services and provide an original contribution to the existing knowledge of the airline industry.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Even though this study revealed exciting results, few limitations also emerged. This study focused on exploring factors leading to customer satisfaction and retention in Omani airlines without considering that the airline industry involves various airlines due to deregulation. Moreover, even when the random sampling method is commonly employed, the random sampling approach in this paper to collect data may not accurately represent the study population. As several limitations restrict the present study, this provides us with avenues for future studies and recommendations. Therefore, further research should explore service quality impacts on customer satisfaction and retention on more broad airlines, including low-cost airlines and legacy airlines. Additionally, as our study proposed customer satisfaction as a mediator, it is suggested to examine word-of-mouth effect as mediator construct between independent variables and customer retention.

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FINANCIAL PERFORMANCE ANALYSIS OF EUROZONE LISTED COMPANIES USING DUPONT MODEL

Baptista, Andreia¹; Alberto, Fernanda¹; Lopes, José²; Nunes, Alcina³

¹ISCAC Coimbra Business School, Polytechnic of Coimbra, IPC-ISCAC, Coimbra, Portugal

²CICF and Polytechnic Institute of Bragança, IPB, Bragança and CICF, Portugal

³UNIAG and Polytechnic Institute of Bragança, IPB, Bragança, Portugal

ABSTRACT

The main objective of this paper is the analysis of factors that can influence the financial performance (measured by “return on equity”) of the Eurozone listed companies. For this purpose, we use the DuPont model to provide useful information to identify the main factors that affect profitability. The data was collected from financial statements of the Eurozone listed companies during the year 2018 (ORBIS database), and the final sample included 750 companies distributed across the 19 Eurozone countries. Using the Ordinary Least Squares (OLS) method, we studied the effects of four factors (tax burden, interest burden, EBIT margin, and assets turnover) in return on equity. The overall results suggest that all factors significantly have an influence in return on equity and, consequently, the financial performance of companies listed in the stock markets of Eurozone countries. The efficient use of total assets, measured by assets turnover, seems to be the most powerful factor with an impact of 0.94% in ROE, due to a variation of 1%. However, all the other factors also show a considerable influence on financial performance.

Keywords: DuPont model; Eurozone countries; Financial performance; Profitability ratios; Return on Equity; Stock markets.

INTRODUCTION

Financial performance analysis includes analysis and interpretation of financial statements with the purpose to undertake a full diagnosis of the profitability and financial soundness of the business. The analysis can focus on different areas, but often it is assessed the firm's production and productivity performance (total business performance), profitability performance, liquidity performance, working capital performance, fixed assets performance, fund flow performance, and social performance. Thus, different financial ratios could be used to analyse working capital, financial structure, activity and profitability, but the latest is one of the most commonly used.

Profitability ratios are financial metrics used to measure and evaluate the ability of a company to generate income, and they evidence how well a company uses its assets to produce the income and value to shareholders; managers widely use them, creditors and investors. Return on Equity (ROE) is one of the most important profitability ratios, giving the value created for shareholders and investors. However, considering this ratio alone does not provide the whole picture of the company. It is necessary to break down the ROE components and understand each of their roles and how they affect the ROE ratio.

Therefore, the main objective of this study is to analyse and explain factors that can influence the financial performance of the Eurozone listed companies, measured by ROE.

To achieve our purpose, we used the DuPont model to provide useful information in order to identify the factors that affect ROE. Using the Ordinary Least Squares (OLS) method, we analysed the effects of four Dupont model' factors (tax burden, interest burden, EBIT margin, and assets turnover) in ROE. The data was collected from the financial statements of the Eurozone listed companies - year 2018 (Orbis database), and the final sample included 750 companies distributed across the 19 Eurozone countries.

This study is structured as follows: firstly, we present the literature review; secondly, we discuss the methodology (methods and data); next we present and discuss the results; finally, we show the main conclusions and the implications of our findings.

LITERATURE BACKGROUND

Companies' performance and financial ratios

The competition among companies has been intensified with globalisation and, consequently, increased the importance of analysing its financial performance and identifying the parameters that could affect it (Erdoğan et al., 2015). Financial ratios are the most popular method of financial analysis due to their use as an input for complex mathematical models (Myšková and Hájek, 2017), including predictive models such as the Altman model and the Ohlson model are based on financial ratios (Kariyawasam, 2019).

In practice, financial ratios are the main way for analysing financial performance due to their simplicity and additional information value. They are based on financial statements and could be an analytical tool providing clarity (Kariyawasam, 2019).

Although financial ratios are widely used to determine the companies' performance, this issue has been an interesting and challenging problem for many researchers and practitioners (Delen et al., 2013). The identification of the financial ratios that can accurately evaluate the companies' performance is an important question for decision-makers.

Several authors analysed the relationship between financial ratios and financial performance in different countries, periods or specific industries. Delen et al. (2013) studied the potential relationship between firm performance and financial ratios, using exploratory factor analysis and adopting predictive modelling methods. They concluded that Earnings Before Tax-to-Equity ratio and Net Profit Margin were the two most important variables.

Borhan et al. (2014) examined the impact of several financial ratios on the financial performance of one chemical company that faced financial problems after its merger and due to the world financial crisis. Using a multiple regression model, they measured six selected financial ratios, representing liquidity, leverage and profitability, from 2004 to 2011. The results showed that some ratios positively affect the company's financial performance and others a negative relationship. The current ratio, debt ratio and net profit margin showed the highest significant impact on the company's performance.

Kariyawasam (2019) analysed the same relationship in ten companies listed in Colombo Stock Exchange, using financial data from 2013-2018 and a panel data analysis. The results showed that only the current ratio, leverage, and firm size had a significant relationship with the company's financial performance. They also observed a positive impact of the current ratio and firm size in its profitability but a negative impact of leverage on it.

Return on equity and DuPont model

ROE is one of the major indicators adopted in the financial analysis of the companies that measure the ability of equity to generate a financial return. Its value is obtained by dividing net income by shareholders' equity (Net Income / Equity).

This ratio is relevant for different stakeholders, but it has particular interest for managers, investors and entrepreneurs. For managers and entrepreneurs can help in the decision-making process (Burja, 2011; Chandrapala and Guneratne, 2012; Chandrapala and Knapkova, 2013; Charles et al., 2018). For investors allow knowing about the creation of additional value (Eiteman, Stonehill and Moffet, 2002). For investors and entrepreneurs allows assessing the global efficiency rate of their investments (Popa and Ciobanu, 2014). In fact, investors want to maximise interest for personal investment by achieving an ROE as high as possible and higher than other potential investments; and the managers are interested in increasing financial return for attracting new business investment (Burja and Mărginean, 2014).

The DuPont model is a sub-part of a ratio analysis methodology for monitoring and enhancing a business's profitability and 'return' (Padake and Soni, 2015). It is advantageous because it breaks various components of business performance indicators into smaller parts, providing a more accurate assessment of the significance of changes in a company's ROE. The main advantage of this model is that it can demystify relatively complex financial analysis and put strategic planning at the fingertips as

it links several critical ratios and allows one to examine how a firm generates its return to its owners, i.e., its ROE (Liesz and Maranville, 2008), providing much deeper understanding on efficiency of the firm (Padake and Soni, 2015).

Since its creation, three distinct versions of the DuPont model have been used to help unravel the underlying drivers of profitability and return over time (Liesz and Maranville, 2008). In 1918, F. Donaldson Brown, electrical engineering, began its functions in General Motors and he recognised a mathematical relationship between two commonly computed ratios, namely the net profit margin (NPM) and total asset turnover (TAT), and return on assets (ROA). With ROA being affected by a profitability measure (NPM) and an efficiency measure (TAT) led to the DuPont model becoming a widely used tool of financial analysis (Liesz, 2002). The original DuPont model was born, as illustrated in equation 1 below (Liesz, 2002; Mubin et al., 2014).

$$ROA = \frac{\text{net income}}{\text{sales}} \times \frac{\text{sales}}{\text{total assets}} = \frac{\text{net income}}{\text{total assets}} \quad [1]$$

In the 1970s, the focus of financial analysis shifted from ROA to ROE (Liesz and Maranville, 2008) and to answer this new perspective, the DuPont model had the first major modification (Little et al., 2011). It was introduced one-third factor of attention for financial managers: leverage. Later, Hawawini and Viallet (1999) introduced a new modification of the DuPont model, adding two more factors. With this change, the new formula includes five factors to explain and understand the ROE and it is shown below in equation 2 (Liesz, 2002; Mubin et al., 2014).

$$ROE = \frac{EBIT}{Sales} \times \frac{Sales}{Invested\ capital} \times \frac{EBT}{EBIT} \times \frac{Invested\ Capital}{Equity} \times \frac{EAT}{EBT} \quad [2]$$

In this equation, EBIT is the earnings before interest and taxes, the EBT is the earnings before taxes, the EAT is the earnings after taxes, and the invested capital is obtained as cash + working capital requirement + net fixed assets.

Several studies used total revenue instead of sales and the total assets instead invested capital of the original model (e.g. AlAli, 2019; Ferreira et al., 2019), calculating ROE using the following formula (equation 3):

$$ROE = \frac{\text{net income}}{EBT} \times \frac{EBT}{EBIT} \times \frac{EBIT}{revenue} \times \frac{revenue}{total\ assets} \times \frac{total\ assets}{shareholders\ equity} \quad [3]$$

Where ROE is equal to *Tax burden* \times *Interest burden* \times *EBIT margin* \times *Assets turnover* \times *Leverage*.

DuPont model requires just a few simple calculations, as Liesz and Maranville (2011) stressed, and gives managers the possibility to conduct strategic and financial planning. In the literature, several studies used the DuPont model to explain financial performance and profitability.

According to Mubin et al. (2014) and Arsad et al. (2017), this model supports managers to assess companies' operating performance and return on equity, financial leverage, and assets turnover. Botika (2012) studied the listed companies in Romania from 2007 to 2010, using profitability, turnover

and leverage, and concluded that DuPont components represent an important and viable form of stock's abnormal returns analysis that supports market participants in making their investments decisions. In the same country, Burja and Mărginean (2014) analysed five companies of the furniture industry. They remarked on the importance of the DuPont model to identify the positive and negative impacts of the different ROE' factors. This study also confirms the versatility of the DuPont model to apply in most companies, regardless of size or industry.

Mubin et al. (2014) studied which of the components of the DuPont model affects more the ROE ratio in different industries of the KSE 100 index, using financial data from 2004 to 2012 of 51 companies. The results showed that asset turnover significantly varies from industry to industry, whereas equity multiplier and profit margin are volatile among indifferent industries. They also observed a positive industry effect on newly established companies from some sectors (fuel and energy, cement and transport and communication).

Warrad and Nassar (2017) used the DuPont model to study companies of Jordanian industrial sectors for the period from 2008 to 2015, and the results revealed a significant effect of total asset turnover and net profit margin on ROE. Still, there is no significant effect of financing leverage. However, there is a significant effect on ROE when three indicators are analysed altogether.

Bunea et al. (2019) analysed the impact of some financial indicators on ROE using the DuPont model, using a sample of 1253 companies from the energetic Romanian industry and a linear regression model. The results showed that asset turnover, price to earnings, price to book and financial leverage were the most relevant ratios to determine ROE. Still, the asset turnover and price to earnings have had the strongest influence.

Recently, Gaweda and Sajnóg (2020) used a developed DuPont model with seven factors to calculate the cross-sectoral detection of the fundamental determinants of ROE of several companies listed on the Warsaw Stock Exchange operating in the industrial sector, the consumer goods sector, and the trade and services sector during the horizon from 2008 until 2017. The evidence disproved the expected results, suggesting that the Capital Multiplier was the leading factor shaping the level of ROE in the companies, and with the Capital Multiplier also expressing a negative correlation of moderate strength to companies' ROE.

Herciu et al. (2011) analysed the top 20 most profitable companies globally in 2009 (according to Fortune). They concluded that absolute measurements, like profit, are not always relevant, and the DuPont analysis is important to compare several companies and to compose ranks. Also, Sheela and Karthikeyan (2012) used the DuPont model to evaluate the financial performance for the top three pharmaceutical companies in India for the period 2002-2012. They found that the model set a common ground for comparing the company's performance.

In practice, the DuPont model is a modified factor analysis that allows determining which factors caused the change in profitability or making a factor analysis of the return on equity (Filatov and Bunkovsky, 2020). As these authors state, the factors that affect ROE are divided to identify which influences more (and less) this ratio. This model could be used by managers or owners of small companies and by other stakeholders (Liesz, 2002) because it simplifies the companies' financial analysis and is also one effective tool to understand how the formula components affect ROE.

The DuPont model does not consider the relationship between return and risk as to the Capital Asset Pricing Model. Still, it is an important tool to analyse a company's profitability and understand the factors contributing to better performance (Ferreira et al., 2019).

METHODOLOGY

Objectives and sample

This research work aims to analyse the financial performance, measured by ROE, of companies located in Eurozone countries and listed on the stock markets. As previously mentioned, ROE is one of the most important ratios/indicators used to determine financial performance. According to the DuPont model (previously explained), several factors (ratios/indicators) might influence the financial performance; in this study, we use a model based on four factors to explain the ROE: *tax burden (tax effect)*, *interest burden*, *EBIT margin*, and *assets turnover*. Thus, it is relevant to find out which of these factors is the most relevant in ROE measurement.

Financial information collected from the ORBIS/AMADEUS database was used to conduct the research. Data was collected from financial statements of listed companies in the Eurozone in the economic period of 2018. During the data processing arose the need to remove some observations contained in the initial database. Namely, those concerning: (i) companies whose net profit for the period was shown to be higher than the profit before tax, a situation that possibly reflects the accounting treatment of deferred taxes established in financial accounting standards; (ii) companies with "tax effect" and "financial charges" ratios higher than one, for the reason previously mentioned, where there is a significant positive effect on results before tax; (iii) companies whose variables show missing values; (iv) Financial institutions were dropped due the specific accounting regulations. For obtaining viable and coherent analysis results, it is worth mentioning that the database does not present unrelated data, data falling into the criteria abovementioned, or non-existent data. In these cases, observations were eliminated so that there would be no bias in the results.

A final sample consisting of 750 companies will be used to reach the goal of the research. Regarding their absolute and relative distribution by country, the following should be highlighted. France (22.8%), Germany (21.6%) and Italy (15.9%) are the economies where most companies in the sample

are located (60.3% of all companies in the sample). For each remaining Eurozone country, the number of companies considered in the sample ranges from 5.9% in Spain, Belgium, or the Netherlands and 0.5% in Latvia or Slovakia. In Portugal are located 2.7% of the total sample companies.

Variables

Regarding the variables considered in the study, the explained variable is ROE (the financial performance proxy). According to the DuPont model, the variables that may explain ROE are the tax effect, the interest burden, the EBIT margin, and the assets turnover. These variables correspond to financial ratios that were calculated using the original data collected on ORBIS. The five factors of the DuPont model presented in equation 3 considers an additional variable – leverage. This last variable will not be considered in the estimation since using the five ratios simultaneously causes a perfect multicollinearity problem and does not allow running the OLS model. From the literature review, we expect the following relationship between the ROE and the explanatory variables (Table 1).

Explanatory variables	Tax effect	Interest burden	EBIT margin	Assets turnover
Expected relationship	(+)	(+)	(+)	(+)

TABLE 1. *Expected relationship between the ROE and the explanatory variables*

Method

In the sense of the proposed analysis, to study the relationship between the ROE and the set of independent explanatory variables defined in the adjusted DuPont model (see equation 3) will be applied the linear regression methodology, known as the OLS method. The method is intuitively applicable and mathematically simple. The estimation is performed through a linear regression to identify and quantify which variables explain (the explanatory or independent variables) another variable, which is the object of study (dependent or explained variable) (Gujarati, 2003). The model to be estimated is the one in equation 4, below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \varepsilon \quad [4]$$

In the specific case of this study, by applying the OLS method, the aim is to understand if the model to estimate is given by the following equation (equation 5):

$$ROE_i = \alpha + \beta_{1i} Tax\ Effect_i + \beta_{2i} Interest\ Burden_i + \beta_{3i} EBIT\ Margin_i + \beta_{4i} Assets\ Turnover_i + \varepsilon_i \quad [5]$$

In equation 5, the ROE is the dependent or explained variable, the tax effect, the interest burden, the EBIT margin, and the assets turnover are the independent or explanatory variables, withdrawn from the DuPont model, *alpha* is the model constant, *beta* are the estimated coefficients and *e* is the error term. Note, *i*=1, 2, ..., *n* represent the observations in the model since the database is cross-sectional. An additional mathematical transformation is done, and the variables will be present in a logarithmic

form. The conversion allows the estimated coefficient to be read as a percentage. On the other hand, it will enable the range of values used in the regression to be reduced.

The model fit may be evaluated using a set of indicators and tests. The coefficient of determination (R^2) indicates the percentage in which the variations in the explained variable are explained by variations occurring in the explanatory variable. A larger value indicates a better accuracy of fit, i.e., a better model. The Student's t-test allows verifying that the estimated coefficient is statistically significant and should be considered as correctly predicting changes in the explained variable. Additionally, the joint significance test (the F-test) is used to verify that the variables together form a good model. Finally, and because several explanatory variables are used simultaneously, it is necessary to verify whether they are somehow related to each other and whether this relationship is strong. To verify whether there is multicollinearity between the explanatory variables, the *Variance Inflation Factors* (VIF) test is used.

It should be noted that the OLS method is one of the traditional methods of inferential analysis most used in economic research (Wooldridge, 2012). In the specific case of applying the DuPont model, several articles have been published in recent years that use this method, which validates and justifies its use in this study (Warrad and Nassar, 2017; Gaweda and Sajnóg, 2020). For a better understanding of the data, descriptive analysis and *Pearson's linear correlation* are previously performed.

RESULTS AND DISCUSSION

Table 2 presents the number of observations for each variable and its unit of measure. It should be noted that, for a more simplified analysis of the data obtained, the values found for the return on equity and the ratios of the tax effect, interest burden and EBIT margin were multiplied by 100 to show values as a percentage.

Variables	N	Unit measure of	Minimum	Maximum	Average	Standard Deviation
ROE	750	ratio	0,001	1.034	0.127	0.113
Tax effect	750	ratio	0.026	1.000	0.714	0.171
Interest Burden	750	ratio	0.066	1.000	0.812	0.179
EBIT margin	750	ratio	0.005	2.530	0.173	0.236
Assets Turnover	750	ratio	0.020	10.529	0.907	0.695

TABLE 2. *Statistical distribution of the data*

The ROE of the companies in this study varies between 0.10% and 103.4%, and the average value is 12.7%. The ROE ratio indicates the percentage of profit per euro invested so, for these companies, each euro invested generates an average profit of 12.7%. The standard deviation is 11.3% indicating the values are very dispersed from the mean value.

The four dependent variables show a significant difference between the minimum and maximum values. The tax effect variable ranges from a minimum value of 2.6% to a maximum value of 100%. The

tax effect variable is calculated by the difference between 1 and the effective tax rate, i.e., $\text{tax effect} = 1 - \text{effective tax rate (tax/income before tax)}$. The maximum value of this variable is given by companies that have a zero-tax burden. On the other hand, a minimum value of 2.6% indicates the existence of companies for which the effective tax rate reaches approximately 97.4%. The average value of this variable, 71.4%, indicates the tax effect that companies bear is, on average, for the 750 observations, 28.6%. The standard deviation has a value of 17.1%. The result indicates each company deviates (either positively or negatively) from the mean in 17.1%, on average.

The interest burden varies between 6.6% and 100%, respectively, corresponding to the minimum and maximum value. The maximum value of this variable, being 100%, shows that the companies that present this result do not show interest expenses. The average value is 81.2%. Since this variable is calculated as '1- interest paid and similar expenses in percentage', it can be said that, on average, the companies show the interest paid and similar expenses equivalent to 18.80%. The standard deviation is 17.9%, indicating that the values of the variable are relatively concentrated.

The EBIT margin ranges from 0.5% to 253%, with the mean value at 17.3%. On average, for values of 17.3%, companies can translate operating assets into results and, consequently, generate operating profits. However, the standard deviation is remarkably high and higher than the mean value (23.6%). In this ratio, it is important to highlight that companies in the database present an income that is not derived from sales/rendered services. As a result, companies have sales values lower than the EBIT.

The assets turnover varies between 0.02 and 10.53. Its average value at 0.91, i.e., on average, for each euro of assets, companies generate 0.91€ in sales. This ratio shows the company's ability to use its assets efficiently, i.e., that the higher its value, the greater the efficiency with which the company generates revenues. The standard deviation is approximately 0.70€. That is, each company can, on average, generate 0.91€ \pm 0.70€.

Table 3, in addition to the values obtained applying the Pearson's correlation between each pair of variables present the statistical significance of this same correlation.

	ROE	Tax effect	Interest Burden	EBIT margin	Assets Turnover
ROE	1				
Tax effect	0.245***	1			
Interest Burden	0.393***	0.173***	1		
EBIT margin	0.160***	0.216***		1	
Assets Turnover	0.208	-0.065*	0.156***	-0.412	1

Notes: *** indicate a statistical significance level of 1%; ** indicate a statistical significance level of 5%; * indicates a statistical significance level of 10%. When no statistical significance was found, the correlation values are not presented.

TABLE 3. *Pearson's correlation: original data*

The tax effect has three positive relationships. The relationships with the ROE, the effect of financial charges and the EBIT margin are statistically significant relationships (significance level of 1%) being

weak positives. The relationship of the tax effect variable with the effect of assets turnover is statistically significant but weak and negative.

The financial burden presents statistically significant relationships with the tax effect and assets turnover. There are weak but positive. There is only a moderate positive relationship between the effect of financial burden and the ROE. With the EBIT margin, a statistically significant correlation was not found. This last variable presents a positive, although weak, and statistically significant relationship with the ROE and the ratio of the tax effect. A statistically significant but negative relationship is found with the assets turnover. The correlation with the interest burden is not presented since it is not statistically significant.

Table 4 presents the results of the model estimation using the OLS method. In addition to the VIF that indicates the degree of collinearity between variables, the estimated adjusted coefficient of determination (estimated adjusted R²) and the joint significance test (Fisher's F test) are presented. In this table, it is possible to observe the estimated coefficients and their respective individual statistical significance (obtained through the application of the t-Student test) and several indicators that measure the adjustment quality of the models.

Variables	Model		
	Estimated Coefficient	Statistical significance	VIF
Constant	0,410	***	
Fiscal effect	0,849	***	1,099
Interest burden	0,712	***	1,220
EBIT margin	0,863	***	2,544
Assets Turnover	0,941	***	2,655
Number of observations	750		
Adjusted R ²	0,840		
F-test	983,92 (***)		
Notes: *** indicate a statistical significance level of 1%; ** indicate a statistical significance level of 5%; * indicates a statistical significance level of 1%.			

TABLE 4. *Results of the OLS estimation*

The estimation results presented in the above table allow us to conclude that all factors explain the ROE variation. In this model, and according to the adjusted determination coefficient, 84.0% of the variations in the ROE are explained by variations that occur in the explanatory ratios. Moreover, the estimated coefficients for all ratios have a statistical confidence level of 99%, and the multicollinearity between the explanatory variables is low (the VIFs are less than 5 for all variables). Finally, the model presents joint statistical significance (the F statistic is statistically significant for a significance level of 1%), which indicates that the variables, together, form a model with the explanatory power of the variation in ROE. The results indicate that a 1% change in the tax effect generates a 0.85% change in the company's financial performance. An increase of 1% in the interest burden leads to a positive change of 0.71% in ROE. The effect of the EBIT margin is remarkably close to the results found for the tax effect. In this situation, when there is a 1% increase in the EBIT margin, the ROE increases by 0.86%. In turn, the

estimated coefficient for the assets turnover shows that when there is a 1% increase in this ratio, the ROE increases by 0.94%. This is the variable that seems to have the strongest influence on the company's financial performance.

All variables show a positive relationship with the financial performance as was expected. According to the findings, all the independent variables have a significant influence on ROE, and therefore on the financial performance. Nonetheless, the major role is played by "assets turnover". The results are in line with Bunea et al. (2019) and Warrad and Nassar (2017), where the "assets turnover" also play a major role to explain ROE. However, we need to consider that "assets turnover" are influenced by the industry sector, as mentioned by Mubin et al. (2014).

CONCLUSION

This study aims to analyse the financial performance of listed companies placed in the Eurozone countries. The financial performance is based on the return on equity and consequently on book values. On average, for 2018, we found that the ROE presents a value of 12.7% - for 1 euro of shareholders equity, the return was 0.127 euros.

Concerning the main factors that have an influence on the ROE, the most relevant seems to be the efficient use of the assets (i.e., assets turnover). The EBIT margin plays the second important role to explain ROE. The tax effect also influences the ROE in a significant manner. For each 1% of variation, it will influence approximately 0.85% in ROE. Surprisingly, the interest burden is the last influencing factor on ROE. However, with a significant value, a change of 1% in the interest burden will influence 0.71% in ROE.

Therefore, the overall results suggest that all the factors significantly affect the ROE and, consequently, the financial performance of companies listed in the stock markets of Eurozone countries.

For future research, it will be interesting to analyse the financial performance of the Eurozone listed companies, regardless of the country and industry, and with more economic periods.

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SOCIAL OPEN INNOVATION: USING STAKEHOLDER ENGAGEMENT TO LINK OPEN INNOVATION WITH SOCIAL NEEDS

Basile, Gianpaolo¹; Tani, Mario²; Troise, Ciro³

¹Universitas Mercatorum, Rome, Italy

²University of Naples Federico II, Naples, Italy

³University of Campania "Luigi Vanvitelli", Capua (CE), Italy

ABSTRACT

Usually, studies on social innovation focus on ONGs and on non-profit organizations as it is at the core of their existence. Still little is known on how, and why, the various society actors interact in order to develop their social innovations and how companies may drive these processes to be viable on the three pillars of sustainability. In this paper we want to focus on these topics, and how they have been studied, from an open innovation and stakeholder management perspective. We look at the “open” side of the social innovation in order to comprehend how the various societal actors are engaged in these processes and we propose a conceptual framework to further develop the research in this topic.

Keywords: Social innovation; open innovation, stakeholder engagement

INTRODUCTION

In the last twenty years, social innovation has become part of the debate on the nature and dynamics of modern society both to represent the evolutions of traditional concepts of technological and organizational innovation, and as a conceptual extension of the innovative character of socio-economic development.

Social innovation was seen as a relevant topic also in policy making, as highlighted by the European Union Green Paper on Innovation drawn up in the 1995 (<https://op.europa.eu/it/publication-detail/-/publication/ad1d6f21-0b2e-423f-9301-c608035e906f/language-en>), which holds that innovation is not just an economic mechanism but, adopting a broader perspective, it is above all a social phenomenon and it should be treated as such. The idea of the social innovation – i.e. an innovation that mostly deal with the social sphere of the society sustainable development – has become fairly widespread in the management literature and in several interdisciplinary studies as well (Chesbrough and Di Minin, 2014).

Many studies focus on the organizations participating in or stimulating social changes whose final objectives are not solely of an economic nature (Howaldt et al., 2015).

Social innovations can, in fact, be considered as the result of the role and commitment of individuals, groups, organizations, and businesses as well, operating embedded in a complex network of relationships with many, and heterogeneous, stakeholders and with the aim of supporting the social adaptations aimed at safeguarding their communities and their territories (Basile and Cavallo, 2020).

In fact, innovations are not only those related to using new technologies and, moreover, for social innovation, it represents the achievement of a transformative social change with an emphasis in favor of communities that, otherwise, do not fall within the traditional market logics. Although there is an abundance of scientific works on social innovation which, explicitly or implicitly, include the engagement of a broad and heterogeneous set of stakeholders, most of them focus on achieving social change without considering economic returns (Chesbrough and Di Minin, 2014; Rayna and Striukova, 2019).

This paper's aim is to present a conceptual framework to see social innovation as the result of "open" interactions between stakeholders of different nature (profit and non-profit), with the aim of influencing/stimulating innovative activities and services aimed at satisfying social needs and supported by the strategic and competitive capabilities of organizations (Howaldt et al., 2015).

To reach these aims, the work will be articulated, in the first part, in a review of the literature related to innovation, open innovation and stakeholder engagement, in the second part, in a representation of the evolution of the paradigms of open innovation and a "social" open innovation, the last part will give space to conclusions and ideas for future research (Giacomarra et al., 2020).

LITERATURE REVIEW

Kuznets (1974), one of the first scholars to study the social role of enterprises, separates the economic and non-economic consequences of technological innovations. He argues that the economic "consequences" of the business action revolve around their contribution to productivity and consumption at a broader level. Among the non-economic consequences of major innovations, he considered three groups of adjustments: institutional changes, displacement effects, and the depletion of the natural environment.

According to Kuznets social innovations are part of the institutional changes and they may also be induced by business innovations. On this basis, an innovation could be defined as social if the new implicit idea has the potential to improve the quality or quantity of life of the community as a whole (Phillips et al., 2015). Accordingly Oeij, et al (2019) hold that social innovations are not necessarily driven by profit motivation, and business innovations do not necessarily have to be social innovations. At the same time Prahalad (2012) bridges the two innovations, both social and business ones, holding that every innovation that has allowed the improvement of human life over time can be considered

social and every innovation accessible by users creates a change in society, in practices and in the habits that characterize.

As an example, the circular economy, do not only contribute to the innovate companies' business model, but it influence the behavior of societal actors towards reducing the quantity of consumption, in favor of its quality, or to make the products more easily recyclable or reusable (Cajaiba-Santana, 2014; Planing, 2015; Husted et al., 2015). Similarly, some scholars have used the concept of "social enterprise" to delineate that is possible to create many different business models that are able to see profit-seeking activities, as a tool for achieving social goals (Komatsu Cipriani et al., 2020; Vrontis et al., 2021).

These examples show that social innovations may have a "market-based" just as business innovation can be "ethically-based". As both cases may mix business and social objectives (Westley and Antdadze, 2010).

At the same time, we can argue that social innovations requires continuous exchanges of knowledge and technologies to between numerous, and heterogeneous, actors/stakeholders, both social and economic ones, that make up an ecosystem (Tate and Bals, 2018; Gupta et al. 2017). This condition designates the scenario of a social innovation, that can be seen as an "open innovation" characterized by activities and services aimed at producing profits useful as a support of the social purposes proposed, influenced, and developed in a collaborative effort by various social stakeholders (public institutions, profit enterprises, non-profit enterprises, finance, research, etc.) that make up the enterprise ecosystem while being its target as well (Yaghmaie and Vanhaverbeke, 2020).

Many scholars hold that this is a viable approach when the environment favors innovations, even socially oriented one (Carmona-Lavado, et al., 2021), and is open to see it as a new business model (de Zubielqui et al., 2019; Musche et al., 2019; Vrontis et al., 2020; Fukuda, 2020).

OPEN INNOVATION AND STAKEHOLDER ENGAGEMENT

Once the place of innovation was the company and, according to the Chandelarian "first mover" model, companies innovated according to a "do -it-yourself"-like process (Chandler et al.,2000); at the start of the new century, with the advent of the Open Innovation model, scholars have acknowledged that the other social and economic actors' knowledge endowment has the same innovation potential of the internal one, in the new context that favor the creation, the establishment, and the ability to maintain over time a wide network of exchanges and, at the same time, reduce the relevance of hierarchical processes (see fig.1) (Santoro et al., 2019).

In this regard, the company, adopting a systemic perspective, marks the condition that cannot innovate in isolation, representing a partially open organization aimed at creating and maintaining

mutual relationships with the relevant stakeholders to achieve the needed conditions to survive leveraging the continuous exchanges of knowledge to enhance the internal knowledge, in order to start a process of natural adaptation of their own knowledge to the new scenarios, as well as fostering the definition of new approaches and radical innovations (Bernal et al., 2019; Arranz et al., 2019; Franke and Lüthje, 2020).

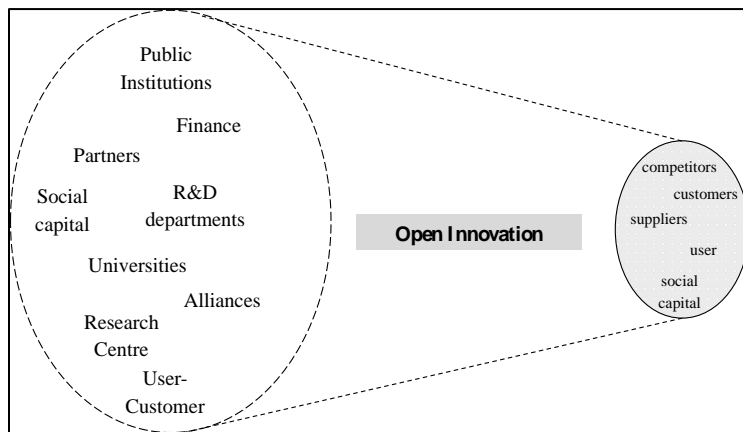


Fig.1: Open Innovation

In support of the above, the new information and communication technologies (ICT) have played a fundamental role, as they have helped to reduce the innovation process actor's perceptions of the distance between each other, and they have helped integrating customers and suppliers in the planning and development processes. As an example, consider that engaging users and enhance their participation has been at the root of the success of several opensource software, such as Linux, or Apache, and how this software has driven other projects (such as the Android platform by Google, and companies as well, such as Red Hat, Inc., to adopting the open innovation paradigm in developing other software (Weller et al., 2015).

This paper draws together the concepts of the stakeholder engagement and socially oriented innovation to research companies' decisions on asserting socially related objectives when innovating and competing (Segarra-Oña et al., 2017).

Stakeholder engagement, defined by Greenwood (2007, p.315) as the set of "practices the organization undertakes to involve stakeholders in a positive manner in organizational activities", represents one of the central elements of the stakeholder theory (Freeman, 1984; Freeman et al, 2020). Indeed, according to Noland and Phillips (2010) stakeholder engagement lies at the center of the discussion on stakeholder theory as it highlights the need to go beyond a mere interaction with stakeholders in order to respect their values, interests, skills and to leverage the knowledge assets of these subjects.

Mainardes et al. (2012) stated that stakeholder engagement is a two-way process in which it is not only the company that takes action to influence the behavior of the stakeholder, but it is also the stakeholder who can decide to interact with the company to try to influence its behavior. On the same

page, other authors (Devin and Lane, 2014; Johnson et al, 2018) see stakeholder engagement as a two-way relationship in which stakeholders can express their requests to the company and to the whole of other stakeholders in order to create a common vision within the network of stakeholders (Rowley, 2017). Thanks to these bi-directional interactions, stakeholder engagement activities allow the company to increase its social capital (Maak, 2007; McLeod et al, 2020). Accordingly, these practices help to create a community where the various actors participate to satisfy their mutual interests, out of these dyadic relationships.

At the same time Maak and Pless (2006) hold that without a stable interaction network, companies will not have the needed resources and capabilities to get the most out of the relationships with the other local stakeholders such as the ONGs or the local communities.

De Colle (2005) considers the stakeholder engagement process as a bi-directional flow of information between the company and the stakeholders and as a meta-process, i.e. a process that, on the one hand, allows management to obtain valuable information that can be used to better meet stakeholder requests and, in this way, they also allow the company to achieve better economic, social and environmental performance. It follows that stakeholder engagement is helpful in defining the goals to target with social innovation and in shaping the related activities in an effective way.

A first advantage of stakeholder engagement practices is linked to knowing the other actors in a better way. Creating a stable relationship with the stakeholders also creates a sense of reciprocity reducing the general level of attrition among the system actors (Fassin, 2009).

The reduction of uncertainty in the relations is linked to shared experiences and dialogue between the different subjects within the stakeholder network that helps in exchanging knowledge; it creates a shared knowledge platform to understand, and mediate, the various actors' perspectives (Morsing and Schultz, 2006) and, at the same time, create a deterrence-based trust.

A second stakeholder engagement advantage is linked to the continuity over time of the activities with the various stakeholders who, therefore, have the opportunity to get to know better the company and its activities. According to some scholars (Burchell and Cook, 2006; Desai, 2018), when management manages to maintain relationships with many stakeholders over time and when it manages to activate stakeholder engagement processes with them, it is possible to obtain greater legitimacy of the company thanks to widespread social and environmental needs recognition that its activities have within the relative communities of reference.

), These knowledge flows create a process that could be defined as a coupled open innovation practices as while the company learns of its stakeholders, the stakeholders will be able to learn more about the company (O'Riordan and Fairbrass, 2006; Wayne Gould, 2012). Through stakeholder engagement processes, an organization can manifest its assumption of responsibility towards the

context in which it operates, and to express the bond of trust with the different classes of subjects involved by increasing its legitimacy towards them (Sciarelli and Tani, 2016).

Last, but not least, the company can use stakeholder engagement processes to create common experiences and to foster stakeholder participation, in order to improve the quality of the related knowledge flows. Stakeholder engagement processes allow the management to initiate a learning process that goes beyond the current requests of the stakeholders to take into account the future evolution of the stakeholder network system of interests to become more effective in innovating their business models (Post et al. 2002; Hart and Sharma, 2004; Leonidou et al, 2020). In this regard, several authors (Harrison et al., 2010; Aarikka-Stenroos et al., 2017) note how management, thanks to the interaction with stakeholders, may understand which are the values and resources available within the stakeholder network and, therefore, may have a greater chance at creating, and improving, social and economic value creation processes (Walloth, 2016).

SOCIAL OPEN INNOVATION

Regarding the scenario below presented, von Hippel (2017) in his publication "Free Innovation" further develops the idea of "large crowds" by highlighting the open, distributed and self-guided nature of innovation-related activities between numerous and heterogeneous stakeholders (Gault, 2018).

This approach highlights the trend towards a completely democratized innovation practice that allow almost anyone to exploit their creative potential to pursue new solutions that maximize both personal use value and social well-being leveraging the various contribution of several relevant stakeholders. In these processes, being able to correctly manage the stakeholder engagement practices can be a significant source of advantage for the company, and even for the system as a whole (Sciarelli and Tani, 2015).

As the old-saying goes "need is the mother of invention", most organizations, both profit and non-profit ones, innovate to solve economic-social problems or to obtain solutions that better suit their needs or those of the other stakeholder they are in relationship with (de Jong et al., 2015; von Hippel and Suddendorf, 2018).

It follows that the open innovation paradigm helps these organizations in creating a stable set of stakeholder engagement practices, and it can be seen as a valuable strategy as it can help them in lowering the barriers to get access to external knowledge sources, and in identifying those external actors that can be more effective in helping them (Porter and Kramer, 2011).

Social innovation concerns "innovative activities and services that are motivated by the goal, the mission (e) of satisfying social needs" without neglecting, however, the objectives of profit and

competitiveness (Tate and Bals, 2018). Therefore, the authors argue, and show in the below figure 2, that social innovation, represented by means the achievement of at least one of the 17 goals of Agenda 2030, the Sustainable Development Goals or SDGs, is the result of a process to satisfy social needs and to improvement the quality of lives of the communities and individuals. Therefore, social innovation may become the cornerstone of business strategies built and shared within a stakeholder engagement context when it is able to focus the network resources on defining and creating innovative activities to support social and economic goals (Aksoy et al., 2019) (see fig. 2).

Therefore, on these basis, we can define social open innovation as the set of all those ideas, activities and processes that stimulate the development of new solutions, or rather of economic and social practices (products or services), through the incoming and outgoing flows of financial sources, knowledge, technologies and collaborations between different entities, mobilizing actions beyond organizational and geographical boundaries and making use of relationships with stakeholders (public and private; profit and non-profit) in relation to each other (see among the others: Rayna and Striukova, 2019; Kohler and Chesbrough, 2019; Chesbrough and Di Minin, 2014; Martins and de Souza Bermejo, 2015).

Therefore, open social innovation builds on a process of identification and resolution of social problems by means of effectively engaging the relevant stakeholders to access knowledge resources and to exchange them between public and private, profit and non-profit interlocutors, in order to support the diffusion of the innovation results (fig. 3).

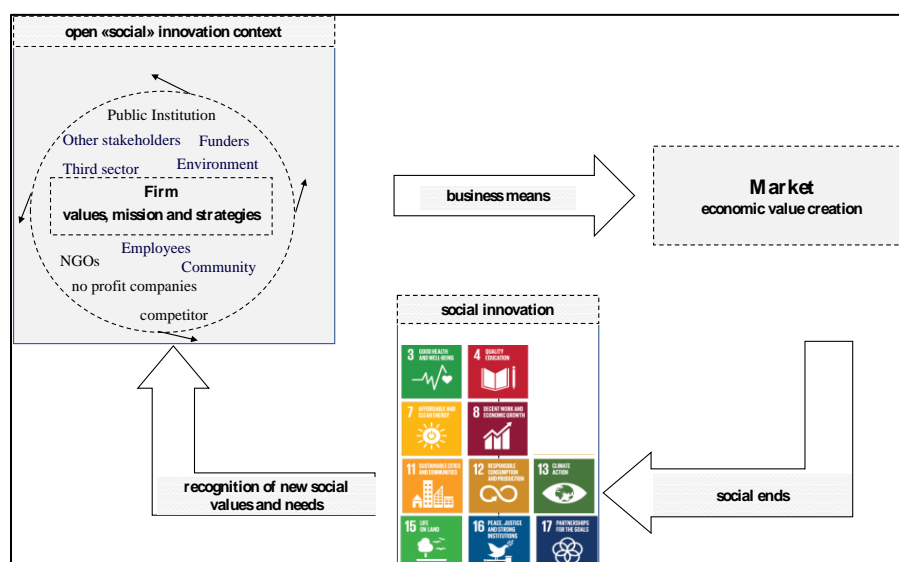


Fig.2: The relationship between social motives and value creation for the innovative company

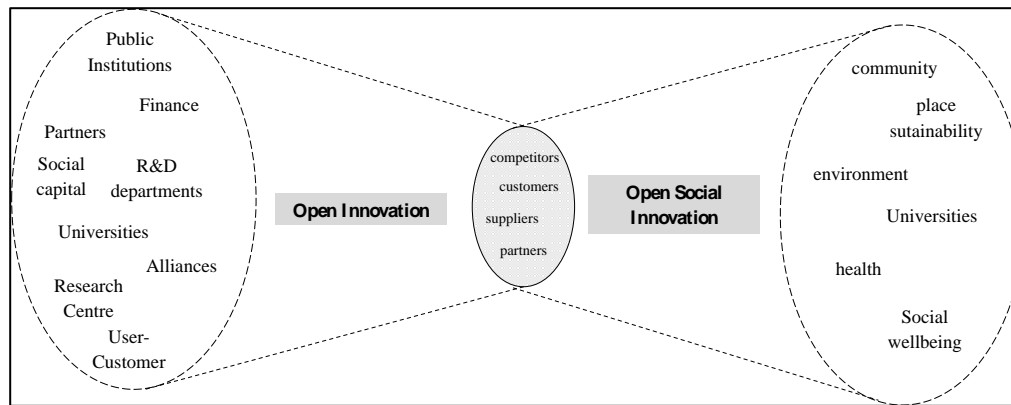


Fig. 3: Companies Socialization and the relevant actors

CONCLUSIONS AND SUGGESTION FOR FURTHER RESEARCH

Since the '90, the locus of innovation has moved from the company to the network (Powell et al, 1996), and the practices of innovation has moved from a closed-innovation to an open innovation paradigm (Chesbrough, 2003). At the same time according to the stakeholder theory, companies should engage their stakeholders to become legitimated and to be more effective in getting access to the resources available in their broad relationship network (Mena and Palazzo, 2012; Desai, 2018), to know, and understand the values and norms ruling the stakeholders' behavior (Yang et al, 2018), and to align all the system actors to them (Velter et al, 2020). Positive effects of this approach have been already found in Environmental Innovation practices (Watson et al, 2018)

Companies, as presented in the course of the work, are both the result and the protagonists of the evolution in the purposes, forms and roles of the for-profit and non-profit organizations. Hybrid organizations – i.e. those organization that merge a social commitment and a for-profit motivation – stimulate new forms of business models and different roles of this in countering social problems and environmental changes (Haigh and Hoffman, 2011; Arfaoui et al. 2020).

For example, Italy was the first European country to give profit companies the possibility to get the title of “benefit corporations” when they accept to follow specific rules stating that the social purpose may coexist with commercial objectives (Czinkota et al., 2018).

From a macroeconomic perspective, the scenario presented could be the basis of a process of social “compensation” driven by the public institutions and leading, more or less spontaneously, to a condition of adaptation of the economic-social ecosystem toward safeguarding the welfare and to protect the environment.

Therefore, at the end of this work we propose some questions that represent ideas for future reflections:

- if the benefits of a social economy are so obvious then why haven't these business models already made the world a better place?

- in profit-making companies can we speak, with regard to socialization, of an evolution of the business model that expresses a means-ends relationship between development policies in the markets and the purpose of supporting and covering a social role within a wider community?

The reasons are manifold and partly rooted in the conceptual flaws of our world mainstream economic order, as well as in the inherent irrationality of consumer behavior.

From an economic point of view, a not fair distribution of the added value along the value chain may be a major cause of imperfect product design. As long as profits are an end, and not the means to achieve social objectives, companies will continue to not take into consideration those planning approaches that take into account of all the impacts derived by the production processes and by the use of the products and are able to tackle the value creation with a broader approach that is embedded in the vision of the various stakeholders that companies are able to engage.

Finally,

- is it sufficient to indicate in the statute and/or in its mission the social purpose for the “benefit corporation” to be considered socially engaged?
- how could stakeholder engagement practices be effectively used by companies to improve their competencies in open social innovation?

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DO COMPANIES AND THEIR EMPLOYEES BENEFIT FROM THE HOME OFFICE REGULATION IN TIMES OF COVID-19?

Behrens, Viktoria¹; Pjero, Elenica²; Krause, Simon¹

¹Faculty of Business and Economics, Mendel University, Berlin, Germany

²Department of Business, Faculty of Economy, University 'Ismael Qemali', Vlore, Albania

ABSTRACT

In this article, it is presented how digitalization and covid-19 are influencing the actual economy right now. Managers are forced to have new business models and strategies to make profitable and sustainable business for company growth. Therefore, the research question "Do companies and their employees benefit from the home office regulation in times of Covid-19?" is examined by an extensive literature review of the topic of digital transformation and its multiple theories. It is defined as a research state for the topic of digital transformation, covid-19, and home office. As follow, it is analyzed the known digital transformation factors and parts that make up the concept of a change process and show how these develop and interact with each other.

Keywords: Digital Transformation, Change Management, Covid-19, Pandemic, Home Office, New Era

INTRODUCTION

In this article, it is presented how digitalization and covid-19 are influencing the actual economy right now. Managers are forced to have new business models and strategies to make profitable and sustainable business for company growth. Therefore, the research question "Do companies and their employees benefit from the home office regulation in times of Covid-19?" is examined by an extensive literature review of the topic of digital transformation and its multiple theories. It should be demonstrated if the forced home office situation supports the companies aims and if it is also a suitable working solution for their employees.

In the past centuries, machines have replaced human beings in physical work. From now on, however, thanks to the digital transformation, machines will take over from people with their brains. Artificial intelligent software systems and machine intelligence will accelerate technical progress more (Wolan, 2020)

Digitalization is a megatrend of our time. It encompasses almost all areas of life. It influences our daily interactions and it is changing our society profoundly and sustainably. All megatrends have these characteristics in common, but digitization has another factor: speed. Developments in the digital field

have an exponential course, which leads to the fact that the available computing power is currently doubling every three months. There seem to be no limits to technical development (Koch, 2016).

Digitization and digital transformation are important topics, especially for companies. These topics are complex and multi-layered. Management strategies, frameworks, process models and tools are required for the implementation of projects (Hess, 2019).

Digital transformation is on the management agenda at all companies nowadays. It underlines how companies want to be and how they want to implement new trends. They want to achieve profitability and sustainability for their company (Mithas, Tafti, & Mitchell, 2013). The biggest issue is that companies always need to transform their selves, because of the never-ending process. Companies need to be competitive and must find out where their best potential is (Deekeling & Barghop, 2017).

The spread of the new coronavirus at the beginning of 2020 is placing an increasing burden on the economy. Recreational and sports facilities have been closed, and restaurants are either open only on a limited basis or have also been closed across the country. In some countries, retail activities have been reduced to basic services. Numerous countries have also shut down their borders to passenger traffic, with exceptions only for commuters. This significantly restricts the economic activity (Blagov, 2020). The pandemic forced many employees to work from home (Schröder, 2020). A lot of companies were not prepared for this change and had to implement home office regulations. Companies also had to change the business structures next to new working styles (Alipour, Falck, & Schüller, 2020). Some companies started to sell online instead of offline. New ways were found, although it was also taff for the employees (Engels & Rusche, 2020). Furthermore, parents with young children were especially affected by the remote work regulations. Childcare at home forced the parents to have stress. It is difficult to combine the job and childcare during the day (Walker, Brewster, & Fontinha, 2020).

The phenomena of digital transformation have not only been researched before this article, but there are already numerous publications, theories, and models on the topic of digital transformation and change management. Many publishers are justifying what business and mental impact Covid-19 has on working at home for a long time.

Kurt Lewin's 3-phase model is the cornerstone of many other change management models, but the model is considered outdated in today's world (Orlikowski & Hofman, 1997). The change process is now recognized as dynamic and not static as it was then. As a result, the "freezing" phase has lost much of its significance. The model is rather used in practice in a modified form (Galli, 2018).

Kotter's eight-step model, like most change management models, is characterized by a top-down approach. Critics criticize the lack of consideration of the bottom-up strategy. One important point is communication, which Kotter establishes in his model with all participants to consolidate a process change in the corporate structure (Oberkötter & Carolin, 2008).

The five-phase model according to Krüger solves the problem of the missing possibility of regressions. In contrast to Lewin's and Kotter's models, upward impulses are also considered. Thus, change initiatives from lower hierarchical levels can be allowed. In addition, the model allows for flexible situation-specific adjustments (Krüger & Petry, 2005).

The digital transformation has several meanings. It's difficult to find a common definition. One definition is the introduction or the usage of digital technology in companies for example (Horvath, 2019). Furthermore, it has four main characteristics. The digital transformation is inescapable, irreversible, fast, and insecure in execution. Every company must deal with this subject one day. The impact differs depending on the market and company (Oswald & Krcmar, 2018).

The research focused primarily on the topic of 'transformation' and its 'behavior'. However, it is repeatedly noted that transformations and changes are always a relevant topic then and nowadays. It can be asserted that the existing research on transformation is extensive and it remains to be examined what role Covid-19 plays in this context.

METHODOLOGY

This research aims to answer the following research question:

'Do companies benefit from the home office regulations in times of Covid-19 or did the change of the business models do not work out?'

An intensive literature review and a qualitative literature analysis are made to answer the proposed research question.

It was used the following databases/library catalogues for the literature search:

- ABS Academic Journal Quality Guide
- Emerald Insight
- Google Scholar
- Google Search
- JSTOR
- Springer
- SCOPUS

The following search terms were used to gain the specific literature:

- Business Models
- Change Management
- Covid-19
- Digital transformation
- Home Office
- Impact
- Pandemic
- Transformation

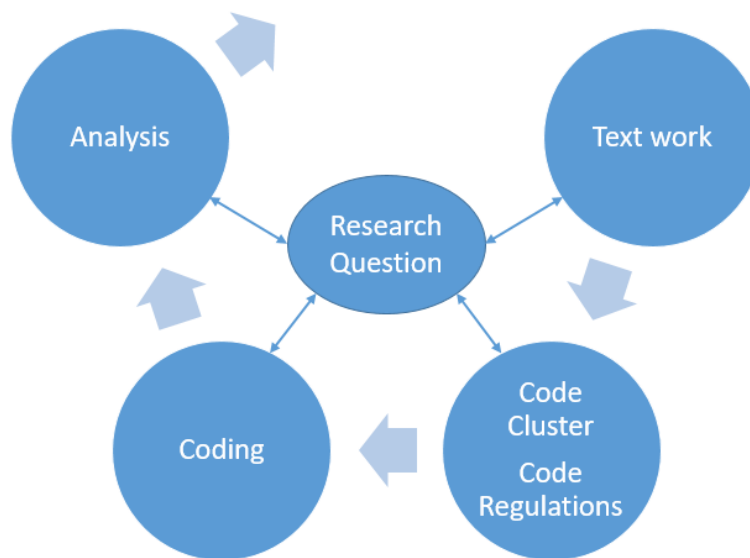


Figure 1 Process of Structured Content Analysis (Mayring, 2012)

The sources were justified and evaluated using qualitative content analysis according to Mayring (2002). This method is suitable for the analysis of problems, cultures, and facts (Mayring, Einführung in die qualitative Sozialforschung, 2002). Especially when exploring previously unknown phenomena, perspectives and experiences, content analysis can be justified. The evaluation is not limited to analyzing the data, but also refers to the category-guided text analysis. This method is a perfect fit for addressing the research question. The work in the home office was known before, however, not under the conditions in a pandemic. Pandemics are mainly known from history, such as the Spanish flu.

Therefore, the approach according to Mayring's method is very appropriate for this research. In addition, there is already a lot of literature, which can be used.

The structured content analysis process model according to Mayring comprises four big steps (Mayring, Qualitative Content Analysis, 2012).

1. Text work:

In the beginning, all the material from the various sources on the research topic was reviewed. Thereby, the representativeness considerations were considered, to what extent the source material answers the research question. It should be made clear that the material was created by authors of books, journals, and papers. Many recent papers, related to Covid-19 and recent work-life balance studies, were created in 2020. Some of the business model sources go back to 1890.

2. Code Cluster/Code Regulations:

The research question helps to define the different codes. The following codes were chosen for the question "Do companies and their employees benefit from the home office regulation in times of Covid-19?": Digital Transformation, Business Models, Covid-19, Work Options, Structured Content Analysis. In addition, further sub codes were defined (Figure 2). The main code was created based on theory (deductive). In contrast, the sub codes were developed based on the material (inductive).

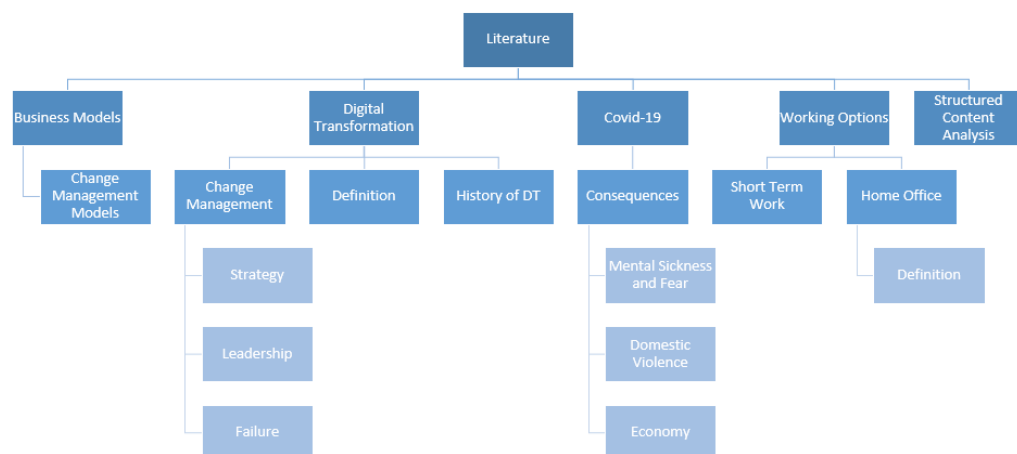


Figure 2 Code Overview

3. Coding:

Coding is used to classify and structure the literature. Through this technique, the sources can be better clustered, so that the analysis part can be done more easily. The literature has been coded with the MaxQDA software. The literature research identified 134 corresponded sources till now. All sources were used and classified as relevant. It includes scientific publications, articles in journals and books.

4. Analysis:

The analysis presents the results. From this, the interpretation can be derived. Together the research question can be answered finally. In this paper, all text passages of the different literatures were evaluated in terms of answering the research question. A special focus is on the changed business models for working at a company due to Covid-19. Due to working at home, people need to deal with a mental sickness as well as domestic violence (Fatke, Hölzle, Frank, & Förstl, 2020). In Addition, the world economy was hit very hard. Companies had to shut down or were forced into bankruptcy. The losers of the Corona crisis are the airlines, hospitality, and tourism sectors. In contrast, the winners of the crisis are, for example, in the consumer goods market (Craven, Liu, Mysore, & Wilson, 2020).

IMPLICATION

Covid-19 has shown that companies are becoming increasingly reliant on information technology (IT). New business models, as well as new infrastructures, had to be created so that employees could work from the home office. The Chief Information Officer (CIO) position became increasingly important during the pandemic. According to a study of CIOs, digital collaboration, as well as information security and digital business models, were declared to be the most important topics (Roscher, 2021).

Every company worldwide was hit by the pandemic. However, there were different impacts depending on the industry. The retail sector was not hit as hard as, for example, the tourism sector or the catering industry. Large firms had an advantage over small firms and were better able to withstand the pandemic. It also shows that smaller firms may have been among those most exposed to the effects of the COVID-19 pandemic (Golubeva, 2021).

Other challenges posed by the pandemic while working from home included maintaining culture and occupational health and safety. In addition, employees stated that there was a very lack of social

interactions, that the internet connection was often not good enough and that there was an increased workload (Marzban, Durakovic, Candido, & Mackey, 2021).

It can be underlined that the psychological burden of the pandemic on the population has increased sharply in many regions of the world. The reasons for this are the fear of infection, as well as social distancing and contact restrictions. Furthermore, the care of people with mental disorders has often deteriorated during the pandemic. Viral concepts could counteract the negative mental health consequences. For example, social contacts were established virtually (Liu, Heinz, Haucke, & Heinzl, 2021).

RESULTS AND DISCUSSION

In summary, it can be said that the various change management models are very helpful, and these have developed very well over the years. However, it should be noted that the digital transformation and the associated change are associated with an impulsive fast pace. Change management models are often simply too static for this, which crystallizes that deviations could arise in practice (Dr. Schupbach, 2007). However, this needs to be examined again. It can also be assumed that the digital transformation will continue to change, and new elements will be added. Therefore, it should also be reviewed once again how this will behave with future trends (Schallmo & Rusnjak, 2016). It should be noted that the role of the CIO and the related IT issues are more important than ever and will continue to play an essential role during the pandemic. The home office regulation, which was largely introduced with Covid-19, could also become a fully integrated model for many companies if the currently prevailing issues are regulated. For many families with children, the situation is probably already easing as children return to school, as well as kindergarten care. This could lead to parents being more relaxed in the home office and conflict situations being eliminated or reduced. The mental problems could also subside again through contact with friends and family. Companies could then also design new concepts in which colleagues could meet with other colleagues or customers again. However, these presumed results should be further analyzed and evaluated.

CONCLUSION

The results of the literature analysis have shown that the pandemic has hit every single player (Competitors, Consumers, Companies, Institutions) in the market. Each participant had to look in his own way how to survive the pandemic or what the solution could be during the pandemic. It should be noted that the damage is enormous. People have partly mental problems, companies must go bankrupt

and institutions need to find new ways to interact with people. Despite various aids from the state, the situation is very tense. In addition, the period of the pandemic and the associated consequences have already lasted for over a year. Even the companies that have put money aside for hard times are reaching their limits.

To conclude the spread of the new coronavirus at the beginning of 2020 is placing an increasing burden on the world economy. It was found out that the corona crisis hit the economy with high speed and full force. Economic disruptions could be observed on the supply and demand side.

It was also found that the corona pandemic posed considerable challenges for the administration and thus also for many institutions. Since contact with other people was kept to a minimum, administrative processes were supposed to be carried out digitally. This was hardly ever implemented because the prerequisites were not met even beforehand. These shortcomings became apparent very early on in the crisis.

Furthermore, it can be underlined that politics and administration are concerned about impending insolvencies, company closures and job losses. But even if numerous economic players have run into difficulties through no fault of their own and must fear for their economic existence, economic development cannot provide support on its own.

It should also be noted that corona has ruthlessly exposed already known weaknesses. These include a lack of future concepts for the city centers, the clinging to industry structures and business models that were already endangered before corona, and the neglect of important social trends

Finally, companies had also to create new working models for their employees, so that they could continue to work. People with higher incomes and educational attainment were more likely to be able to work from home. In addition, it can be summarized that families had to restructure themselves as they had to fulfill childcare and work responsibilities at the same time as schools and kindergartens were closed. The time, that parents could gain by no longer having to drive longer distances to work now, had to be put into childcare. Thus, the positive effect of home office could not be used properly, as the double burden mainly causes stress. The results regarding health are very frightening. People who normally have very strong personalities are now struggling to cope. Families have fallen apart because too many people had to live together in too small spaces. Domestic violence and mental illness also increased during the pandemic period. The existing research question, ' Do companies and their employees benefit from the home office regulation in times of Covid-19?' can thus be answered as follows.

The home office approach leads to more disadvantages and difficulties within a lot of companies and institutes, as well as for the families.

RECOMMENDATION

The research should continue and should consider the complete year 2020 as well as the lockdown from November 2020 to May 2021. Other results could be measured against this. Companies have had a bit of time to restructure up until that period, which could produce a different result. In addition, the lockdown phase was very long, which could have caused much more damage. Furthermore, long-term studies could now indicate even more precisely whether the people in the offices at home have suffered long-term health damage.

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MOTIVATIONS FOR USING CF: A STUDY AMONG PORTUGUESE ENTREPRENEURS

Bernardino, Susana¹; Freitas Santos, J.¹; Silva, Rita²

¹CEOS.PP, ISCAP, Polytechnic of Porto, Porto, Portugal

²ISCAP, Polytechnic of Porto, Porto, Portugal

ABSTRACT

The research aims to identify the motivations for using crowdfunding (CF) as it becomes a significant way of funding new ventures. The study adopts a quantitative approach, based on an online survey sent to the entrepreneurs who have used the largest and oldest Portuguese CF platform (PPL) for funding. The data were analysed in relation to frequency and use of platforms, typology of projects, level of success and satisfaction with the campaigns, and the motivations for using CF.

The results indicate that the main motivations that lead promoters to use CF are the lack of financial resources to launch/develop the venture, the possibility of increasing the project's visibility online and the easy access to funding with less bureaucracy.

The study provides insight to platform managers to better promote the advantages of using CF among potential entrepreneurs according to its main motivations. At the same time, the findings offer knowledge that could help interested entrepreneurs avoid costly mistakes. Further, the research reveals that developing a CF campaign is not an easy task as it demands a considerable investment in time and resources to be successful.

The analysis of the motivations and satisfaction of entrepreneurs regarding CF allows for recommendations into the contributory or inhibiting factors of CF. On the positive side of the balance are the online visibility of the project (through social media) and the low bureaucracy to get the money. On the negative side, the investment in time and resources needed to perform the campaign.

Keywords: Entrepreneurship, Crowdfunding, Motivations, PPL Platform.

INTRODUCTION

Encouraged by the digital media, crowdfunding (CF) is beginning to gain awareness among entrepreneurs as a financing tool for new projects, especially for those in the early stages (Belleflamme *et al.*, 2010; Hemer, 2011). Indeed, entrepreneurs who lack funding have the opportunity to disseminate their project on a digital CF platform, aiming to attract (many) individuals willing to support the project through small contributions of money (backers).

The evidence found in the literature suggests that CF could represent an important instrument for promoting entrepreneurship, since this financial tool may help minimize the funding difficulties of entrepreneurs. Although important, the existing studies are still scarce, being necessary to produce additional research on the subject to better understand the motivations of CF (Gafni *et al.*, 2021). Thus, in order to obtain further knowledge about different aspects of CF, more specifically about the motivations for using CF, the study aims to examine CF from the point of view of the entrepreneur that attempts to attract financial resources to an entrepreneurial project.

The present study is focused on examining the frequency and use of the platforms by the effective entrepreneur, along with the characteristics of the projects, the level of success and satisfaction with the campaigns, and the motivation factors for using CF.

In order to explore the above issues an online survey was undertaken. The questionnaire was sent to the entrepreneurs who have made at least one CF campaign in the PPL platform. The data were collected between 4 February and 5 of May 2020, and the final sample includes 86 valid responses.

The structure of this paper is as follows. First, we present the concept of CF and its business models. Second, the motivations to use CF are reviewed. Third, a description of the methodology of the study is offered. Fourth, the findings are presented. Fifth, a number of conclusions are drawn.

1. CROWDFUNDING: CONCEPTS AND BUSINESS MODELS

Over the past few years, CF has experienced significant growth being an increasingly popular funding option, with the increase in the number of platforms and amounts of funding (Demiray and Burnaz, 2019; Liang *et al.*, 2020; Yu *et al.*, 2017). An important contribution to this growth was occurred during the economic and financial crisis that emerged in 2008, which greatly intensified the difficulty in accessing the banks' loans (Kuti and Madarász, 2014; Stemler, 2013). In this context, CF revealed to be an attractive alternative financing tool, especially for startups and growing companies (European Union, 2017; Stemler, 2013), and non-profit ventures (Hemer, 2011).

The meaning of CF is found in the expressions "crowd" and "funding", consisting essentially in mobilizing funds through a crowd, where each person, individually, contributes with a small amount of money. The concept of CF is also defined by (Belleflamme *et al.*, 2014) as involving an open invitation, essentially through the internet, to provide financial resources, either in the form of donations (without rewards) or in exchange for some form of reward and/or voting right, to support initiatives for specific purposes. In Portugal, the existing legal regime defines CF as the financing of entities, or their activities and projects, through their registration on electronic platforms accessible through the internet, from which they proceed to raise investment tranches from one or several

individual investors (Legal Regime of Collaborative Financing, defined in Law No. 102/2015, of 24 August. This funding mechanism is based on a one-to-many matching approach since each project will require a high number of funders (Belleflamme *et al.*, 2015).

According to the literature, there are two main business models of CF. The CF oriented to profit that focuses on investment (equity-based and loan-based) and the social CF that focuses on sponsorship and patronage (donation-based and reward-based). The only business model that does not have any type of compensation is the donation-based as all the others have some kind of economic or financial compensation (Dushnitsky *et al.*, 2016; Kuti and Madarász, 2014). CF platforms are an important part of the model as they bring together entrepreneurs (who need financing) and people available to finance projects (potential investors) to a common purpose - implement the business idea (Koch and Siering, 2015, 2019; Zvilichovsky *et al.*, 2015). Because these platforms are simple and easy to work on, they have become very attractive and popular (Koch and Siering, 2015, 2019).

Considering that raising capital is one of the main barriers to entrepreneurship, CF emerges as a promising tool to support entrepreneurial activity (Bernardino and Freitas Santos, 2021), although it may be especially useful for the pre-seed or seed phase of a project, when new ventures need small amounts of money to begin their activity. It is important to mention that CF is not able to fully replace traditional funding sources, especially in the more advanced stages of a business where more significant amounts of money are needed. However, this practice can complement traditional funding sources, helping companies start their venture, which otherwise would become more difficult (Hemer, 2011).

2. BRIEF REVIEW OF MOTIVATIONS FOR USING CF

To identify the factors that motivate entrepreneurs to develop a CF campaign we made a brief review of literature on the topic (Bernardino and Freitas Santos, 2020; Frydrych *et al.*, 2014; Gerber and Hui, 2013; Hossain and Oparaocha, 2017; Mollick, 2014; Moritz and Block, 2014). The synthesis of that research is depicted in Table 1.

Through CF, creators are motivated to raise funds in a democratic way, reflecting their core values. Establishing relationships is another motivation as this facilitates collaboration with funders via long-term interactions. By receiving validation, entrepreneurs' perceptions of ability can be raised and can lead to increased confidence and therefore expanding capabilities. Replicating the success of others not only further gives confidence but also provides social proof that anyone can launch a campaign on a crowdfunding platform. Lastly, the authors describe how creators are motivated in using

crowdfunding as it can expand awareness of their work through social media, raising online profiles, for example increased numbers of Twitter followers.

Motivations	Description
Difficulties in accessing funds	Entrepreneurs perceive CF as being an efficient method to raise funds especially if they are unable to obtain financing from traditional sources of fundraising, such as own savings, family and friends, debt, business angels or venture capital
Availability of funds more quickly and less time consuming	Entrepreneurs have the perception that CF is less time consuming than other funding methods such as grant applications as there is less waiting time to receive the funds.
The appeal of the "crowd"	Entrepreneurs could appeal online to a large number of potential investors (backers) to provide a small amount of money to support the project.
Flexibility	In most of the CF modalities there is no place to a financial commitment related to repayments and interest rate (the only exception is lending CF, although the interest rate charged is usually lower than those applied by banks or other financial institutions).
Enhance the awareness of the project/organization	CF is a platform to market the projects/organizations to the general public through social media, news media and popular press raising awareness beyond their social network. Some founders use CF to pre-sell their products.
Establish long-term connections	The CF process enables the establishment of long-term relationships as a result of several interactions with supporters and other founders by platform communication, social media and face to face.
Gain Approval	Founders can increase their confidence levels and satisfy a desire of approval for themselves and their projects. This is achieved from community support, public recognition and funds raised. Approval can be considered positive feedback which then strengthens validation.
Maintain Control	Founders could maintain the control over their project/organization. Autonomy enables a creator to undertake their project as they want, gaining confidence in their personal ability.
Learn New Fundraising Skills	CF pushes founders to learn new marketing, communication and management skills in order to engage different and bigger audiences.

Table 1. *Motivations of entrepreneurs for using CF (own elaboration)*

3. METHODOLOGY

3.1 Research design

The study uses a survey to collect data from individuals who had used a Portuguese CF platform (PPL) to fund their projects. This platform is the largest and oldest CF platform in Portugal and operates since 2011 (Oliveira, 2015). Also, is the only one credited by crowdsourcing.org and is a member of the European Crowdfunding Network. PPL is a Gold Member of the European Crowdfunding Network (ECN), an international non-profit organization created in Brussels, which aims to promote transparency, (self-) regulation and governance, offering a combined role in policy discussion and public opinion building (ECN, 2020; PPL, 2020).

The PPL uses the reward-based and the donation-based CF models. By the beginning of December 2020, PPL had already raised more than €5 million, having a total of 171,485 members and 151,142 supporters. The platform was able to successfully fund a total of 1,243 campaigns, which represents a

success rate of 44%. Successful campaigns, on average, needed 48 days to complete the pledging goal and, on average, were able to raise more than the initial campaign objective (120% of the initial target, on average), with an average of €3,522 fundraised through each campaign.

The questionnaire was designed following the literature and the objectives of the research, having benefited from the contributions of a previously administered and validated questionnaire (Bernardino and Freitas Santos, 2020).

	Total N	(%)
Gender		
Female	46	53,49%
Male	40	46,51%
Age		
<25 years	6	6,98%
Between 25 and 35 years	30	34,88%
Between 36 and 45 years	31	36,05%
Between 46 and 55 years	14	16,28%
>55 years	5	5,81%
Educational level		
Secondary	21	24,42%
Higher	65	75,58%
Area of study		
Economic and Business	11	12,79%
Engineering	13	15,12%
Social sciences	21	24,42%
Others	41	47,67%
Residence area		
North	28	32,56%
Centre	46	53,49%
South	12	13,95%

Table 2. *General characterization of the respondents (own elaboration)*

The questionnaire was composed of four sections: i) identification of the respondents; ii) characteristics of the project/organization; iii) motivations for using CF (measured in a 5-point Likert scale); iv) success and satisfaction with the CF campaign. The questionnaire was built on the Lime Survey platform. For the administration of the questionnaire, the authors asked permission from the management board of the PPL Platform, who sent the questionnaire. The survey was distributed between 4 February and 5 of May 2020, allowing the collection of 86 valid responses. Data analysis was made by the Statistical Package for the Social Sciences software (SPSS).

3.2 Sample

The sample was composed of a balanced number of female (53.49%) and male (46.51%) respondents (Table 2). The vast majority of respondents are aged between 36 to 45 years (36.05%) and 25 to 35 years (34.88%). The age groups with the lowest number of respondents were older (aged over 56 years - 5.81%) and younger (under 25 years - 6.98%). In both genders, the most common age categories are

those between 25 and 35 years old and between 36 and 45 years old. Respondents over 56 years old were all men.

Regarding the education level, 75.58% of the respondents had higher education, and the remaining 24.42% had secondary school education. Higher education is slightly more expressive among the women respondents (80.43%) than men (70.00%). The most common area of specialization among the respondents was social sciences (24.42%), followed by engineering sciences (15.12%) and economic and business sciences (12.79%). Nevertheless, engineering science is more common in male respondents (34.78%) and social sciences among females (25.00%). In both genders, the answers were provided by respondents living in different regions of the country.

4. RESULTS AND ANALYSIS

4.1 General analysis

The results of the general analysis about the frequency of use (table 3), the typology of projects/organizations (table 4), the success (table 5) and the satisfaction (table 6) with the CF campaign.

Frequency of use and platforms

The majority of respondents reported that they had used CF (table 3) only one time (74.42%). The data analysis indicates that most of the respondents have only used the PPL platform (86.05%). The use of other platforms was made by 13.95% of the respondents.

	Total	
	N	(%)
Number of times that had used CF		
Only once	64	74,42%
Between 2 and 5 times	21	24,42%
More than 5 times	1	1,16%
Had used other CF platforms		
No	74	86,05%
Yes	12	13,95%
Had used other national CF platforms		
No	6	50,00%
Yes	6	50,00%
Had used other international CF platforms		
No	5	41,67%
Yes	7	58,33%

Table 3. *Frequency of use and platforms (own elaboration)*

Typology of projects/organizations

The Table 4 shows the relevance of CF in financing projects related to culture, the area that has the highest number of respondents in both genders (41.86%). This is followed by education (16.28%), technology (9.30%) and entrepreneurship (9.30%). Only 32.56% of the CF campaigns are oriented to support a social cause, with the remaining campaigns being created to fund business projects (67.44%).

More than half of the respondents (54.65%) had formally launched an organization/project. Most of the projects/organizations to be funded are recent, having been established within less than five years (47.67%). It should also be noted that the vast majority of projects/organizations have fewer than five employees.

	Total N	(%)
The CF campaign aimed to fund		
One project	72	83,72%
One organisation	14	16,28%
Area of activity of the financed project/organization		
Sport	5	5,81%
Culture	36	41,86%
Technology	8	9,30%
Entrepreneurship	8	9,30%
Education	14	16,28%
Health	6	6,98%
Agriculture, forestry, fishing or hunting	4	4,65%
Others	22	25,58%
The campaign aimed to support a social cause		
Yes	28	32,56%
No	58	67,44%
The organization/project is formally constituted		
Yes	47	54,65%
No	39	45,35%
The seniority of the project/organization to be financed		
< 1 year	26	30,23%
Between 1 and 5 years	41	47,67%
> 5 years	19	22,09%
Total number of employees in the organization/project		
Less than 5	66	76,74%
Between 5 and 10	11	12,79%
Between 11 and 30	4	4,65%
More than 30	5	5,81%

Table 4. *Typology of projects/organizations (own elaboration)*

Success of the CF campaign

Analyzing the amount of money pledged in the CF campaign (Table 5), it can be seen that the large majority of respondents asked low amounts of money to fund their projects. Indeed, most of the respondents (62.79%) have requested funding between €1,000 and €5,000 and 23.26% for less than €1,000. It should be noted that only a small percentage of respondents (3.49%) indicated a pledging goal higher than €10,000, which reveals that CF campaigns are carried out to obtain low amounts of funds.

Concerning the capacity to mobilize the resources asked during the campaign, we observed a success rate of 54.65% among the respondents, since 16.28% mentioned having obtained the totality of the campaign's objective and 38.37% indicated having exceeded the pledging goal.

	Total	
	N	(%)
Pledging goal		
< 1.000 euros	20	23,26%
Between 1,000 and 5,000 euros	54	62,79%
Between 5,001 and 10,000 euros	9	10,47%
More than 10.000 euros	3	3,49%
Amount of funding raised (according to the pledging goal)		
< 25%	24	27,91%
Between 25 and 50%	5	5,81%
Between 51 and 75%	6	6,98%
Between 76 and 99%	4	4,65%
100%	14	16,28%
> 100%	33	38,37%

Table 5. *Characterization of the pledging goal and funding of the CF campaign (own elaboration)*

Satisfaction with the funding operation

The level of satisfaction with the amount of funds obtained through the CF campaign (Table 6), is high among promoters (9.30% satisfied and 54.65% very satisfied), with an average satisfaction level of 3.74 on a 5-point Likert scale. The respondents were especially satisfied with the functionalities displayed by the platform (50% very satisfied for an average value of 4.23). Nevertheless, a high satisfaction was also observed for the time required to complete the funding campaign (average value of 3.97, with 48.84% of respondents very satisfied), the benefits perceived by the use of the CF compared to their initial expectations (average value of 3.69) and the compensations required to reward the campaign backers (average value of 3.67).

	(1) N	%	(2) N	%	(3) N	%	(4) N	%	(5) N	%	Mean	SD
Amount obtained from the CF campaign	15	17,44	8	9,30	8	9,30	8	9,30	47	54,65	3,74	1,60
Time necessary to complete the CF campaign	5	5,81	9	10,47	12	13,95	18	20,93	42	48,84	3,97	1,26
Costs/counterparts required to recompense the campaign backers;	5	5,81	11	12,79	18	20,93	25	29,07	27	31,40	3,67	1,21
Benefits perceived from the use of CF compared to initial expectations;	11	12,79	5	5,81	14	16,28	26	30,23	30	34,88	3,69	1,35
Functionalities in the use of the platform	2	2,33	2	2,33	13	15,12	26	30,23	43	50,00	4,23	0,95

Notes: (1) *Very unsatisfied*; (2) *Unsatisfied*; (3) *Neither satisfied nor unsatisfied*; (4) *Satisfied*; (5) *Very satisfied*.

SD – Standard Deviation.

Table 6. *Satisfaction with the CF campaign (own elaboration)*

Therefore, we can observe that, even if the promoters did not obtain the initially defined pledging goal, in general, they were quite satisfied with the amounts obtained during the campaigns. Concerning the time needed for the campaigns, only 5.81% of the promoters were "not satisfied at all" and 48.84% were very satisfied. On the other hand, regarding the costs and compensations necessary to pay the campaign, 31.40% of the promoters indicated that they were "very satisfied" and only 5.81% were "not satisfied at all". When we evaluated the promoters' satisfaction with the benefits perceived through the use of CF, we found that 34.88% of them were "very satisfied" and 30.23% were "satisfied". Differently, only 12.79% were "not satisfied at all".

Variable	(1) N	(%)	(2) N	(%)	(3) N	(%)	(4) N	(%)	(5) N	(%)	Mean	SD
C1. Not having sufficient resources of my own (such as assets and savings) to launch/develop my business	13	15,12	0	0,00	4	4,65	16	18,60	53	61,63	4,12	1,43
C2. Not being able to get funding through my network of contacts (such as family and friends)	28	32,56	5	5,81	11	12,79	17	19,77	25	29,07	3,07	1,66
C3. Not being able to get finance through traditional funding sources (e.g. bank loan)	38	44,19	6	6,98	5	5,81	8	9,30	29	33,72	2,81	1,81
C4. Not being able to get funding through other types of investors, such as venture capital	40	46,51	6	6,98	6	6,98	6	6,98	28	32,56	2,72	1,81
C5. CF does not require the return of the capital obtained	37	43,02	3	3,49	6	6,98	13	15,12	27	31,40	2,88	1,79
C6. Having rapid access to finance in a few days	23	26,74	9	10,47	14	16,28	22	25,58	18	20,93	3,03	1,51
C7. Having easy access to non-bureaucratic fundraising	19	22,09	4	4,65	14	16,28	22	25,58	27	31,40	3,40	1,52
C8. Having access to low cost funding	22	25,58	4	4,65	8	9,30	25	29,07	27	31,40	3,36	1,59
C9. CF does not require having collateral in the funding operation (e.g. guarantee or mortgage)	35	40,70	4	4,65	8	9,30	11	12,79	28	32,56	2,92	1,77
C10. Providing feedback from potential customers	23	26,74	8	9,30	15	17,44	15	17,44	25	29,07	3,13	1,59
C11. Enable to increase the visibility of the project through the CF platform	11	12,79	2	2,33	14	16,28	17	19,77	42	48,84	3,90	1,38
C12. Allow for market testing before launching the product/service	33	38,37	14	16,28	7	8,14	14	16,28	18	20,93	2,65	1,61

Notes: (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree. SD – Standard Deviation.

Table 7. Main motivations for using CF (own elaboration)

4.2 Analysis of the motivations

One of the research objectives was to understand the main motivations that lead entrepreneurs to use CF. It was found that the main reason that led respondents to use CF was the lack of resources for launching/ developing their business, which was mentioned as very important by 61.63% of respondents and attained an average rating of 4.12 on the 5-point Likert scale (Table 7). Another motivation that respondents indicated is the visibility of the project online (considered as very important for 48.84% of the respondents; average value of 3.90) and the easy access to financing without bureaucracy (average value of 3.40). The reason least valued by the respondents (average value of 2.65) was that CF could be used to test the market before launching the product/service. It should be

noted that the use of this financing tool is more stimulated by the insufficiency of the promoter's own resources (average value of 4.12) than by the incapacity to obtain financing through the network of contacts (average value of 3,07), incapacity to obtain financing through traditional sources (average value of 2.81) or incapacity to use other types of investors (average value of 2.72).

Amongst the benefits perceived by the use of CF, the respondents highlighted the reduced bureaucracy (average value of 3.40), the low cost involved (average value of 3.36) and the rapidity of the financing process (average value of 3.03). Less valued are the non-obligation to have collateral (average value of 2.92) and the non-obligation to return the capital obtained (average value of 2.88).

As the correlation analysis had indicated that a large part of the pairs of variables under study is correlated in a statistically significant way, aiming to synthesize the information and better understand the results obtained, we performed a factor analysis through principal components analysis. The analysis of the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure indicates that data are adequate for factor analysis (Table 8).

	Factor Loading	Eigenvalues	Average	Standard-Deviation	% Var	%Accum. Var	Cronbach Alpha
Component 1: Benefits of the financial tool		4,561	3,14	1,325	27,733	27,733	0,865
C5 No obligation to return capital	0,736		2,88	1,785			
C6 Fast Financing	0,881		3,03	1,514			
C7 Bureaucracy-free financing	0,870		3,40	1,521			
C8 Low cost financing	0,835		3,36	1,586			
C9 Financing with no collateral	0,563		2,92	1,770			
Component 2: Lack of resources		1,76	3,14	1,32236	20,957	48,69	0,781
C1 Not having own resources	0,679		4,12	1,426			
C2 Not being able to get finance through the contact network	0,742		3,07	1,658			
C3 Not being able to get traditional financing	0,807		2,81	1,812			
C4 Not being able to get funding from other investors	0,785		2,72	1,806			
Component 3 : Other benefits		1,709	3,19	1,280	18	66,69	0,776
C10 Provision of feedback	0,822		3,13	1,585			
C11 Increase visibility	0,734		3,90	1,381			
C12 Allow to test market	0,864		2,65	1,614			

Note: Extraction method: principal component analysis; Rotation method: varimax, with Kaiser normalisation; KMO measure= 0,765; Bartlett's test of sphericity: $p < 0,000$.

Table 8. Factor analysis of the motivations for using CF (own elaboration)

The analysis performed allowed the extraction of three main components capable of explaining 67% of the data's total variance. Component 1 is related to the advantages of this financial instrument and includes being a type of financing that does not require the return of capital, the rapidity of financing, funding without bureaucracy, low cost, and no collateral requirements. The second component, in turn, is related to the insufficiency of resources, which includes the fact that people do not have enough

resources to launch the project/organization, they cannot access funding through their network of contacts, they cannot access traditional funding methods, as well as they cannot obtain financing through other investors. Finally, the third component explains the other benefits that CF offers, which include providing feedback, increasing visibility of the project, and enabling market testing.

After that, we have calculated the index for each of the principal components attained, based on the weighted average of each variable in the component (loading). After analyzing the indices obtained, it is possible to find that the third component, related to the other benefits of using CF, achieved the highest average value among respondents (average of 3.19). The other two components, regarding the advantages of this financial tool and its use due to lack of resources, have the same average value (3.14).

5. CONCLUSION

In general the respondents are very satisfied with the functionalities displayed by the PPL platform, the time required to complete the funding campaign, the benefits perceived by the use of the CF compared to their initial expectations, and the compensations required to reward the campaign backers. The success rate reported by the respondents concerning the capacity to mobilize the resources asked during the campaign was 54.65%. The main motivations that lead promoters to use CF are the lack of financial resources to launch/develop the venture, the possibility of increasing the project's visibility online and the easy access to funding with less bureaucracy. When assessing the amounts of capital that the promoters intended to raise through the campaign, it was found that promoters use CF for low amounts of money.

The study is helpful to platform managers as the knowledge about the main motivations for using CF could assist them to better promote the advantages of using CF among potential entrepreneurs. The findings also offer knowledge that could serve interested entrepreneurs avoid costly mistakes. Further, the research reveals that developing a CF campaign is not an easy task as it demands a considerable investment in time and resources to be successful.

The analysis of the motivations and satisfaction of entrepreneurs regarding CF allows for recommendations into the contributory or inhibiting factors of CF. On the positive side of the balance are the online visibility of the project (through social media) and the low bureaucracy to get the money. On the negative side, the investment in time and resources needed to perform the campaign.

This study's main limitation was the small number of promoters who responded to the survey, as well as the sampling frame that encompasses a single CF platform, albeit the most important in Portugal. For this reason, it is recommended to be carefully when generalizing the conclusions obtained, which ought to take into account the specific context in which the research was carried out.

In future studies, it is recommended to extend this study to other platforms, involving different types of CF and other countries. Comparing the results obtained with campaigns developed at the European level would make it possible to understand regional differences and trends in the use of CF.

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DOES IMMIGRANTS' CHARACTERISTICS SHAPE THE PREDISPOSITION TO ENTREPRENEURSHIP?

Bernardino, Susana¹; Freitas Santos, J.¹; Casarin, Eliane²

¹CEOS.PP, ISCAP, Polytechnic of Porto, Porto, Portugal

²ISCAP, Polytechnic of Porto, Porto, Portugal

ABSTRACT

The immigration crisis in Europe and the challenges of social and economic integration of immigrants has become a relevant subject to advanced economies. This communication aims to enhance the knowledge base about the immigrant's entrepreneurial propensity. To explore this topic the paper examines the gender, age, education, área of study and previous experience of immigrants in Portugal, assesses the individual's entrepreneurial propensity, and evaluates whether that propensity is related to the immigrant's characteristics.

The paper uses a quantitative approach, based on an online survey sent to immigrants whose hosting country is Portugal. The data collection process was carried out between March and September 2020 and the final sample considered for analysis was 100.

The results show that many immigrants have already launched their own businesses, and most of them intend to do it in the future. The effective propensity to invest is mainly influenced by gender and age while the potential entrepreneurial intention is independent of the immigrants' characteristics.

The results suggest that gender (men) and age (middle-aged) lead to an effective propensity to invest. Therefore, policymakers can increase economic activities by developing and deploying specific programs according to immigrants' demographics in order to encourage them to launch new ventures.

This study brings new empirical data to examine the level of association between the effective propensity to invest and the potential entrepreneurial intention with some personal factors of the immigrants in Portugal. It theoretically conceptualizes that immigrants of certain gender and age are more predispose to invest.

Keywords: Immigrants, immigrant entrepreneurship, profile, propensity to entrepreneurship, Portugal.

INTRODUCTION

Although migration is already a very long-established phenomenon, it has experienced a significant increase in recent years (Li, 2013). Nowadays, as argued by (Baycan-Levent and Nijkamp, 2009), international migration has become a key feature of the modern open societies.

Currently, around one in every thirty people worldwide is an international migrant (IOM, 2020). According to the International Organization for Migration, in 2019, almost 272 million people were migrants, which corresponds to 3.5 per cent of the world's population, with nearly two-thirds of them being labour migrants (IOM, 2020). It is also important to note that 74 per cent of all international migrants were workers, between 20–64 years (IOM, 2020). According to the same report, in 2019, Europe, for example, had hosted around 82 million international migrants, which represents about 30,1 per cent of the total global international migrant stock. Indeed, the migration corridors have been traced over many years and typically happen from developing countries to larger and more developed economies.

Despite the relevance of migration flows at an international level, people moving to a new country sometimes face significant social and economic barriers that may lead to difficulties in integrating into the formal labour market (Sah and Li, 2019). Other migrants, when they arrive in the new host country, also seek to explore business opportunities that allow them to improve their own living conditions and their family members. For those reasons, entrepreneurial activity is quite important and promising for immigrants, who tend to be more prone to take entrepreneurial actions than the general native population (Baycan-Levent and Nijkamp, 2009).

The literature on entrepreneurship has sought to understand the main factors that constrain the propensity for entrepreneurship. Herein, a branch of the literature has studied the relevance of personal factors on the formation of entrepreneurial intentions. However, there is still a lack of robust empirical evidence about these factors.

This communication aims to enhance the knowledge base about this topic. Thus, the paper's main purpose are threefold: i) identify the profile and characteristics of immigrants in Portugal; ii) examine the predisposition of immigrants towards entrepreneurship; and iii) evaluate whether the predisposition of immigrants to entrepreneurship depends on their profile.

The communication is divided into 4 main sections. In section 1 is presented the literature review on the main topics. Firstly, the concepts of immigration and immigrant entrepreneurship are discussed. Thereafter, the main personal factors that influence the propensity to entrepreneurship are explored. The methodology of the study is described in section 2, and in Section 3 the results attained are presented. In the end, the main conclusions of the communication are summarized.

LITERATURE REVIEW

Immigrants and immigrant entrepreneurship

International migrants are, according to the International Organization for Migration (IOM, 2020), people who stay outside their usual country of residence for a period of at least one year. These people

leave their own country of origin because of economic, geographic, demographic motives that are the basis for creating migration flows and migration flows (IOM, 2020).

Migration flows have brought some important economic and social benefits, contributing for example, to world economic growth, society evolution, cultural enrichment, and dynamization of the societies' level of entrepreneurial activity, either in origin and destination countries (IOM, 2020).

Despite the growth and potential of immigration, the migration phenomenon is also associated with many difficulties (Li, 2013). The main challenges faced by immigrants could result from their economic and socio-cultural integration, which are considered critical for people arriving in a new country (Sah and Li, 2019). Economic integration refers to the ability to enter the labour market successfully; Socio-cultural integration, on the other hand, involves a process of mutual adaptation between migrants and host communities, and is related to the migrants' sense of belonging, the knowledge of the host country's culture and social norms, and the ability to establish relational ties within the new community.

Existing literature indicates that entrepreneurship is an important activity for immigrants. Indeed, empirical evidence reveals that migrant entrepreneurs are more likely to work independently and launch new businesses than native-born entrepreneurs in most countries, including Portugal (Baycan-Levent and Nijkamp, 2009). Herein, entrepreneurship often becomes a tool for immigrants' labour integration in the host country, mainly as an alternative against lack of employment and possible exploitation by employers (Baycan-Levent and Nijkamp, 2009; Coutinho *et al.*, 2008). In addition, as observed by Baycan-Levent and Nijkamp (2009), immigrants and foreigners are often more exposed to unemployment than the native population.

Immigrant entrepreneurship can be understood as the process by which an immigrant sets up a business in the host country (Dalhammar, 2004). Thus, the concept of immigrant entrepreneurship refers to the portion of immigrants who opt for entrepreneurship, either driven by choice or by necessity. In the first case, immigrants adopt an entrepreneurial behavior to explore opportunities in the business environment that they perceive to provide better living conditions for themselves and their families. In entrepreneurship by need, the option by an entrepreneurial activity is related to the scarcity of opportunities found in the host country (Baggio and Baggio, 2015; Van Auken *et al.*, 2006; Zolfagharian and Iyer, 2020).

Propensity to entrepreneurship

The concept of entrepreneurship is often linked to starting a business, typically a private for-profit business (Drucker, 1985). In its origin, the concept means to undertake, to try and experiment.

Currently, the term is used to describe initiatives that combine productive resources (human, material and financial), which are used to achieve an end (profit), with the entrepreneur accepting the risks of the business itself.

As entrepreneurship is an individual act taking place in a social setting (GEM, 2020), several researchers have studied the influence of the entrepreneurs' personal factors, such as personality traits and demographics, and contextual variables on the development of entrepreneurial intentions and the predisposition to become an entrepreneur (Faria and Couto, 2019; Teixeira and Davey, 2010). Specifically, one of the topics investigated includes the analysis of socio-demographic variables and to what extent these variables are able to trigger the propensity to start an entrepreneurial venture.

a) Gender

Research on economic entrepreneurship generally identifies a gender gap favorable to men (GEM, 2020). This gender gap is found in most countries, as in most of them, new businesses are more likely to be started by men than women (GEM, 2020). Indeed, in 2020, female entrepreneurship was higher than the male one in just six countries, located in Central and East Asia or the Middle East and Africa. Thus, early-stage entrepreneurial activity is gender-sensitive for a combination of cultural, societal and economic reasons.

As argued by (Colombelli *et al.*, 2021), a justification for this gender gap could be provided by the barriers to starting a new venture, which is higher for women and could be even more intense in the case of women immigrants. Among these difficulties, (Colombelli *et al.*, 2021), highlight the lower financial education of women and the lower amounts of credit that women ask for and have access if compared to men.

Further, the motivations for female entrepreneurship vary from country to country as they are related to the various factors in each country (economic, political, social, cultural, legal). Nevertheless, According to the GEM Report on Women's Entrepreneurship (GEM, 2019), starting an entrepreneurial activity lead by necessity motivations is more common in women than in men.

b) Age

Age has been mentioned as a factor capable of influencing the propensity for entrepreneurship, although the age profile of entrepreneurs varies according to the country's economic characteristics.

There is an inverted u-shaped pattern for most countries, since the entrepreneurial activity rate increases with age group and then decline. Indeed, for most countries studied in the GEM Report (GEM, 2020), the most prevalent age of entrepreneurs is between 25 and 34 years old.

The influence of age on entrepreneurial predisposition could be explained by different factors such as: (i) the energy, propensity to new experiences, capacity to use new technologies and follow a trend, and time available to take benefit from a successful initiative, which is especially common in younger people; and (ii) the skills, knowledge, access to information, networks and other resources essential to launch a new venture, for which older people may be more capable and empowered (GEM, 2020).

Concerning immigrants age, it should be noted that young people born abroad are significantly more exposed to unemployment than are their native counterparts (Baycan-Levent and Nijkamp, 2009).

c) Education and area of study

Education has been pointed out as an encouraging element of entrepreneurial behaviour. Several studies, in different contexts, suggest that training increases the likelihood that an individual will engage in entrepreneurship (Estrin *et al.*, 2012; GEM, 2020; Teixeira and Davey, 2010).

The relevance of education in entrepreneurship could be explained by the facility that individuals with higher levels of education could have in identifying and exploring new opportunities, and the financial capacity that they have to access funding (GEM, 2020). Even so, the GEM report (GEM, 2020) identifies some few exceptions with countries where the entrepreneurial activity of graduates are lower when compared with non- graduates individuals.

In addition, education in entrepreneurship, through the inclusion of entrepreneurship courses and activities on campus, has been recognized as very important to the development of an entrepreneurial attitude (GEM, 2020; Teixeira and Davey, 2010).

Existing literature also indicates that the area where people develop their studies can constrain the entrepreneurial propensity, emphasizing the positive impact of training in economics and business. Similarly, (Wadhwa *et al.*, 2007) found some prevalence of science, technology, engineering and mathematics-related fields among immigrant entrepreneurs.

d) Previous experience

Literature has also pointed out that the individual's personal and professional experience is an important factor in developing a new venture.

Previous exposure to the business sector is confirmed as relevant to entrepreneurship predisposition, as well as parental work experiences, professional education, and personal work experiences. The influence of role models on the decision to become self-employed have also been confirmed as relevant (Lasпита *et al.*, 2012), which are justified in accordance with the social learning theory (Chlosta *et al.*, 2012). (Chlosta *et al.*, 2012) argue that the growth and exposure in families with an

entrepreneurial heritage allow children to learn from others who play the role models for them and influence their attitudes, values, and lifestyle. These role models could even be found among immigrants, as shown by (Colombelli *et al.*, 2021), who found a higher propensity to entrepreneurship if immigrants are located in ethnic communities, providing industry-specific institutional knowledge and exerting this role model effect and foster learning-by-example mechanisms.

In addition to personal contacts, migrants can follow behaviour models performed by other respected and admired businesspersons, whose success has inspired them. As suggested by (Griskevicius *et al.*, 2012), individuals tend to imitate those who are perceived as prestigious or successful under the contingent behaviour theory.

Type of variable	Variable name	Variable description
Dependent variable	Effective entrepreneurial propensity	Refers to the fact that immigrants have already created an organization; Dummy variable, where 0 corresponds to "no" and 1 corresponds to "yes".
	Potential entrepreneurial propensity	Refers to the likelihood of immigrants in Portugal start a new venture in the future. A five-point Likert scale was used, where 1 corresponds to highly unlikely and 5 to highly likely.
Independent variable	Gender	Refers to the immigrants' gender, where 1 corresponds to "female" and 2 corresponds to "male";
	Age	Refers to the immigrants' age; The variable comprises the following categories: 1. < 25 years old 2. Between 25 and 35 years old 3. Between 36 and 45 years old 4. Between 46 and 55 years old 5. > 56 years old
	Education level	Refers to the immigrants' educational degree, where 1 corresponds to secondary studies and 2 corresponds to higher education;
	Area of study	Corresponds to the field where the immigrants have developed their studies; The variable comprises the following categories: 1 corresponds to education in engineering sciences, 2 corresponds to economic and businesses, 3 corresponds to social sciences and 4 corresponds to others.
	Number of years in Portugal	Refers to the number of years over which immigrants have already been in Portugal, where 1 refers to less than 1 year ago; 2 between 5 and 10 years, and 3 corresponds to a situation where immigrants have been in Portugal for more than 3 years;

Table 1. Summary of the variables in the research model (Own elaboration)

Job satisfaction has also been mentioned as a driver of entrepreneurial activity, as empirical evidence shows that dissatisfaction with past experiences increases the likelihood of individuals being involved in creating their own ventures (Smith-Hunter *et al.*, 2003). Entrepreneurial orientation can also be explained by the beliefs and social norms that prevail in the circles closer to the individuals (e.g. friends and family). According to (do Paço *et al.*, 2011), these subjective social norms are, in part, determined by the opinion of those people who influence individuals' entrepreneurial behaviour. In addition, (Wadhwa *et al.*, 2007) found, in the American case, that immigrant entrepreneurs usually launched their venture after working and residing in the country for an average of thirteen years.

METHODOLOGY

This communication aims to understand if the immigrants' gender, age, education, area of study and previous experience can influence their current and future propensity to entrepreneurship. To implement the research objectives a set of variables was considered in the investigation (see summary in Table 1).

The primary data was collected through a survey sent to immigrant entrepreneurs in Portugal. The questionnaire was made available online through the Lime Survey platform.

The sampling frame of the study comprises the individuals coming from other countries and currently residing in Portugal, who attend training courses on entrepreneurship, such as the Program for the Promotion of Immigrant Entrepreneurship, conducted by the Office of Support to Entrepreneurial Migrants held by the Portuguese High Commission for Migration, as well as the Women's Connection Network focused on women's issues, especially female entrepreneurship. Initially, we requested the support of the office of the High Commissioner for Migration, which forwarded the request to the responsible by the Office of Support to Entrepreneurial Migrants, which has collaborated by sending the questionnaire to the immigrants participating in different editions of the Program for the Promotion of Immigrant Entrepreneurship. We have also asked a network that supports female entrepreneurship (Women's Connection Network) to disseminate the questionnaire among its members.

The data collection process was carried out between March and September 2020, which allow to collect 100 valid responses, provided by immigrants from different countries such as Brazil (81.0%), Venezuela (4.0%), Germany (3%) or Angola (2%). The data analysis was made through the use of the SPSS (Statistical Package for Social Sciences) software, version 26.

RESULTS

The profile of immigrants who have participated in the research is summarized in Table 2.

		N	%
Gender	Female	66	66,0%
	Male	34	34,0%
Age	< 25 years old	5	5,0%
	25-35 years old	24	24,0%
	36-45 years old	34	34,0%
	46-55 years old	29	29,0%
	> 56 years old	8	8,0%
Number of years in Portugal	< 3 years	68	68,0%
	Between 5 and 10 years	23	23,0%
	> 10 years	9	9,0%
Education Level	Secondary education	9	9,1%
	Higher education	90	90,9%
Area of study	Engineering Sciences	10	10,0%
	Economic and business sciences	28	20,1%
	Social sciences	24	14,8%
	Other	38	27,5%

Table 2. Profile of immigrants in Portugal (Own elaboration)

The respondents are mostly female (60.0%) and only 34.0% are male. The age of most immigrants in the sample are over 36 years old (71.0%), especially the groups aged between 36 and 45 years old (34.0%) and between 46 and 55 years old (29.0%). By contrast, the percentage of respondents who are less than 36 years old was only 29.0%.

Questions		N	%
Have you already created any organizations?	No	49	49,0%
	Yes	51	51,0%
Probability of starting an organization in the future	1- Highly unlikely	10	11,2%
	2- Unlikely	7	7,9%
	3- Neither likely nor unlikely	16	18,0%
	4- Likely	23	25,8%
	5- Highly likely	33	37,1%

Table 3. Entrepreneurial attitudes of immigrants in Portugal (Own elaboration)

Most respondents are living in Portugal for less than 3 years (68.0%), and only 9.0% have been living in the country for more than 10 years. The vast majority of the respondents have higher education (90.9%), while the remaining respondents have secondary education (9.1%). The immigrants have developed their studies in economics and business (20.0%), social sciences (14.8%) and engineering (10.0%).

Regarding the entrepreneurial activity of the immigrants in Portugal, the analysis of Table 3 indicates that slightly more than half of the respondents have already created an organization in the past (51.0%). In addition, 62.9% of them consider as likely or very likely the possibility of launching an organization

in the future. On the other hand, just 19.1% of the respondents mentioned being unlikely to start an organization in the future.

When analyzing the entrepreneurial attitude of immigrants in Portugal in accordance with their profile (Table 4), we observe that the creation of an organization was more frequently among male immigrants than female ones. Indeed, we observe that most male respondents had already created an organization in the past (73,5%), while only about one-third of women reported the same (39,4%). Regarding the future entrepreneurial activity, we observe that the percentage of men who indicate to be likely or very likely to create an organization in the future (71.9%) is higher than that observed for women (57.9%).

With regard to age, it is more common that younger immigrants have never created any organization. Further, respondents aged between 46 and 55 are those for whom a higher percentage of entrepreneurial activity is already observed. Interestingly, it is observed that most respondents are likely or very likely to start an entrepreneurial activity in the future for most age groups. The exceptions were found in younger and older migrants. Indeed, only 40% of individuals aged less than 25 years old expressed a positive intention to create an organization in the future. However, a large percentage of people aged less than 25 do not have a definitive idea about the possibility of developing an organization in the future. The same pattern is also observed in people over 56 years of age.

The results show that people who are living recently in Portugal have a higher effective entrepreneurial attitude than those immigrants who have been in Portugal for more than 10 years. The same is found for the possibility of developing an entrepreneurial activity in the future.

Most immigrants who have higher education levels have already created an organization (53,3%), which is considerably lower for individuals with lower education levels education (22,2%). However, those individuals with only secondary education have a higher potential in the future, since most (75%) consider it likely or very likely to launch a business in coming years.

Regarding the area of study, we observe that the effective entrepreneurial behaviour was higher in individuals from engineering (60.0%) and economic and business sciences (60,7%); however, when looking at the future entrepreneurial potential, the responses are very similar across the different areas of study under analysis, being most of the respondent prone to launch a venture.

Variables		Have already created any organizations?		Probability of starting an organization in the future				
		No	Yes	(1)	(2)	(3)	(4)	(5)
Gender	Female	60,6%	39,4%	12,3%	8,8%	21,1%	24,6%	33,3%
	Male	26,5%	73,5%	9,4%	6,3%	12,5%	28,1%	43,8%
Age	< 25 years old	100,0%	0,0%	20,0%	0,0%	40,0%	0,0%	40,0%
	25-35 years old	62,5%	37,5%	4,5%	13,6%	9,1%	31,8%	40,9%
	36-45 years old	47,1%	52,9%	13,3%	3,3%	16,7%	23,3%	43,3%
	46-55 years old	31,0%	69,0%	12,0%	12,0%	16,0%	28,0%	32,0%
	> 56 years old	50,0%	50,0%	14,3%	0,0%	42,9%	28,6%	14,3%
Number of years in Portugal	< 3 years	50,0%	50,0%	11,1%	9,5%	17,5%	23,8%	38,1%
	Between 5 and 10 years	34,8%	65,2%	15,8%	5,3%	5,3%	31,6%	42,1%
	> 10 years	77,8%	22,2%	0,0%	0,0%	57,1%	28,6%	14,3%
Education Level	Secondary education	77,8%	22,2%	0,0%	12,5%	12,5%	50,0%	25,0%
	Higher education	46,7%	53,3%	12,3%	7,4%	18,5%	23,5%	38,3%
Area of study	Engineering Sciences	40,0%	60,0%	11,1%	0,0%	33,3%	11,1%	44,4%
	Economic and business sciences	39,3%	60,7%	7,7%	7,7%	23,1%	34,6%	26,9%
	Social sciences	54,2%	45,8%	4,5%	4,5%	22,7%	18,2%	50,0%
	Other	55,3%	44,7%	18,8%	12,5%	6,3%	28,1%	34,4%
Number of years in Portugal	< 3 years	50,0%	50,0%	11,1%	9,5%	17,5%	23,8%	38,1%
	Between 5 and 10 years	34,8%	65,2%	15,8%	5,3%	5,3%	31,6%	42,1%
	> 10 years	77,8%	22,2%	0,0%	0,0%	57,1%	28,6%	14,3%

Table 4. Entrepreneurial intentions according to immigrants' profile (Own elaboration)

In order to understand the level of association that may exist between propensity for entrepreneurship and the profile of the respondents, a correlation analysis based on Spearman's rho coefficient was undertaken (Table 5).

Variable	Have already created any organizations	Probability of starting an organization in the future
Gender	0,323**	0,127
Age	0,263**	-0,111
Number of years in Portugal	-0,009	-0,010
Education Level	0,179	-0,009
Area of study	-0,135	-0,029
Number of years in Portugal	-0,009	-0,010

Note: ** The correlation is significant at 0.01; * The correlation is significant at the 0.05 level

Table 5. Correlations matrix between entrepreneurial intentions and immigrants' profile (Own elaboration)

The analysis reveals that the effective creation of organizations in the past is statistically significant for gender ($r_s = 0,323$, $\alpha = 0.01$) and age ($r_s = 0,263$, $\alpha = 0.01$). No statistically significant correlations were

observed concerning the number of years in Portugal, education level and area of study. In addition, the analysis reveals that the probability of starting an organization in the future is not statistically correlated with the immigrants' profile.

CONCLUSIONS

The investigation carried out reveals that immigrants in Portugal have a highly effective and potential entrepreneurial activity, since more than half of the participants indicated having already created their own business, and most have already consider this possibility as likely or very likely in the future.

The work developed shows that the demographic pattern of immigrants in Portugal can slightly influence the predisposition to entrepreneurship. The factors that better discriminate the entrepreneurial behaviour is gender and age. Indeed, the investigation reveals that men, similarly to the observed in entrepreneurship in a broader sense, are more prone to get involved in immigrant entrepreneurship initiative than women. This finding may be justified by the more significant difficulties of women immigrants to launch a new venture, regardless of the integration barriers they could face in the host country.

The investigation further indicates that age can condition the predisposition to entrepreneurship, being this propensity more evident among middle-aged immigrants. The propensity to create an entrepreneurial activity in the future, in turn, is independent of the immigrants' profile.

In the future, it would be interesting to study the main motivations that led immigrant entrepreneurs to start their activity in Portugal and if those motivations are or not constrained by the immigrants' profile.

The paper contributes to the understanding of the personal factors (gender, age, education level, area of study and previous experience) of the immigrant potential entrepreneurs in Portugal. Also, the study brings new empirical data about the relation between immigrants personal factors and, respectively, the effective propensity to invest and the potential entrepreneurial intention propensity.

The practical implications of the research is for policymakers that can increase economic activities by developing and deploying specific programs according to immigrants' demographics in order to encourage them to launch new ventures. Also, financial institutions could be interested in the results as they could design niche marketing strategies in order to attract immigrants of certain gender and age. Finally, the study brings awareness to non-governmental organizations that hosts immigrants that entrepreneurship is an important way to create self employment.

Despite the enlargement of the knowledge base, the research has some limitations, especially the sample size, and the fact that it was performed in a single country.

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INSIGHTS FROM CROWDFUNDING PLATFORMS IN PORTUGAL

Bernardino, Susana¹; Freitas Santos, José¹; Sousa, Marco²

¹CEOS.PP, ISCAP, Polytechnic of Porto, Porto, Portugal

²ISCAP, Polytechnic of Porto, Porto, Portugal

ABSTRACT

Crowdfunding (CF) online platforms play an important role in an era of digital transition, by enlarging the opportunities of entrepreneurs to collect funds from the crowd. The online platform operates efficiently connecting people that asks for funds with investors/donors looking for investment opportunities. In Portugal, the first CF platform arose in 2009, and new platforms have emerged after that. To get an overall picture of the present situation in Portugal, this communication aims to explore the specificities of the CF industry by adopting a comparative analysis of the platforms that operate in the market. To attain this objective several comparison criteria were used (e.g. business models, promoters, areas of activity, financial and operational data, fees) in order to highlight the differences and similarities between the platforms as well as the financial sustainability of the operating companies. The data for this study was collected through desk research by extracting financial information from two databases (Saabi and e-informa) and consulting the platforms and news about the CF companies. The investigation reveals that different platforms in Portugal explore either donation, reward-based or loan-based CF, some of which are under the scope of specific sectors of activity, and most of them use the all-or-nothing model. No equity-based CF platforms were found in Portugal. Despite the growth in the activity and the success of the campaigns carried out, Portuguese platforms still face some difficulties in achieving financial sustainability.

Keywords: Crowdfunding, Crowdfunding Platforms, Crowdfunding Modalities, Crowfundeers, Crowdfunders, Portugal.

INTRODUCTION

Nowadays, we live in a digital era, and many things are happening in an online context, such as shopping, media, banking, public services, and even collaborative financing. The unusual idea of collecting donations for a specific purpose has gained an online dimension in recent years and adopted the terminology of crowdfunding (CF). Crowdfunding consists of a collective movement of many, who connect and pool their resources to support efforts initiated by others through the interaction and intermediation of an online platform.

Crowdfunding platforms play the key role of bringing together people who share interests within the online community. Herein, the primary role of crowdfunding platforms is to connect and articulate the willingness expressed between individuals who seek funding (crowdfundees) and those who are available to fund (crowdfunders).

Since 2009, collaborative financing has attained some relevance in Portugal. However, despite the difficulties that potential entrepreneurs face in mobilizing resources for entrepreneurial activities, the use of CF as a source of financing is still largely underexploited in Portugal. Therefore, it is critical to enlarge the knowledge base about the sector in Portugal. Thus, the purpose of this communication is to explore the specificities of the CF industry by adopting a comparative analysis of the platforms that operate in the market. To attain this objective several comparison criteria were used (e.g. business models, promoters, areas of activity, financial and operational data, fees) in order to highlight the differences and similarities between the platforms as well as the financial sustainability of the operating companies. Given the purpose of the communication, the research has an exploratory nature, seeking to find new insights on a subject that, although very relevant, is still under-explored.

The communication is divided into three sections. The first section defines the theoretical framework of the study and includes the concept of crowdfunding, the CF business models and the main actors involved in the process of collaborative financing. Then, in section two, the methodology used is explained. Section three describes the main results obtained. Finally, the main conclusions are presented.

THEORETICAL BACKGROUND

The etymology of the word "crowdfunding" relies on the combination of the words "crowd" and "funding". Thus the concept refers to the practice of funding a project, idea or company through small amounts of money provided from a large number of people, usually online.

For (Belleflamme *et al.*, 2014; Belleflamme *et al.*, 2010), the concept of crowdfunding can be seen as part of a broader concept of crowdsourcing, which refers to the use of the crowd to obtain ideas, solutions or feedback to improve a product or service. More specifically, the concept of crowdfunding could be defined as a method for connecting entrepreneurs, who aim to raise capital, and investors who are willing to invest small amounts through internet-based intermediaries and create a pool of financial resources (Valančienė and Jegelevičiūtė, 2014).

According to the Massolution report (2015) report, crowdfunding refers to any type of fundraising program whereby the project objectives and corresponding financial needs are widely disseminated on an online platform through the communication of a CF campaign. The information contained in the campaign will be judged by a large number of individuals who will make their own decision on the

merit of the project. (Ahlers *et al.*, 2015), in turn, consider that CF is an umbrella term used to describe an increasingly widespread form of fundraising, usually via the internet, in which groups of people (the crowd) accumulate money, usually through small individual contributions to support a specific goal.

The growth of the CF industry has led to the appearance of different financing mechanisms that, overall, can be classified into two categories (Belleflamme and Lambert, 2016): (i) non-investment models, and (ii) investment models. Non-investment models do not involve any kind of financial return as a counterpart of the funds raised through the CF campaign, even though they can involve some intrinsic compensations to donors/supporters. As shown in Figure 1, non-investment models include the donation and rewarded-based modalities.

In more investment-oriented models, the funding operations involves financial return and could comprise loan based CF, equity-based CF and even, more recently, royalty and invoice CF (Dushnitsky *et al.*, 2016; Kuti and Madarász, 2014; Mokter and Onyema, 2017).

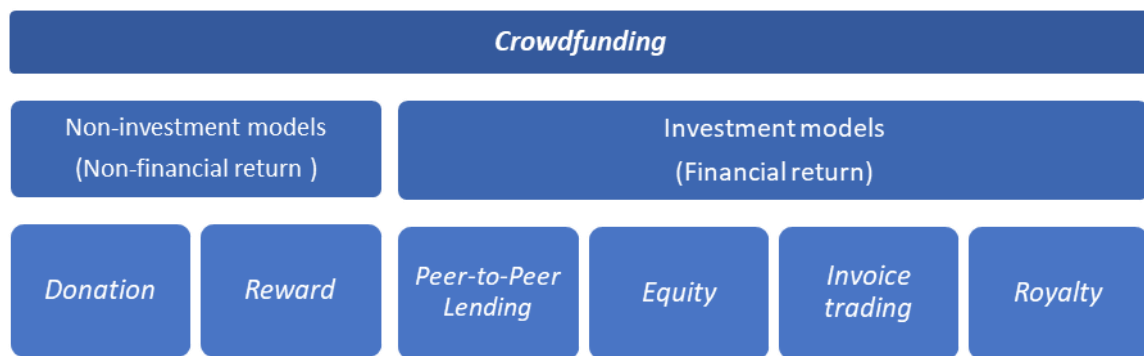


Figure 1. Crowdfunding Models. (Adapted from European Commission (2016) and Hommerová (2019))

The main characteristics of the different Crowdfunding models are summarised in Table 1.

Type of Crowdfunding	Donation	Reward	Equity	Loan	Royalty	Invoice trading
Type of contribution	Donation	Reward/pre-sale	Investment	Loan	Investment	Loan
Investor/donor expectations	Intangible benefits	Tangible and intangible benefits	Return on investment	Capital reimbursement, with or without interest	Return on investment	Return on investment
Investor/Donor motivations	Intrinsic and social	Intrinsic and social. An excellent way to test products and measure interest	Financial participation and management participation	Return higher than market rates	Financial gain	Financial gain
Main target	Social/cultural causes, journalism, philanthropy	Pre-sale of innovative products/rewards	Start-up businesses	Short-term borrowers	Companies with innovative product/service	Companies
The complexity of	Very low	Low	High	Medium	High	Medium

the process						
Example of beneficiaries	NGOs, musicians, artists	Start-ups	Start-ups	Individuals/businesses	Start-ups	Already established companies
Type of contract	Contract without reward	Possible purchase agreement	Shareholder entry contract	Loan contract	Contract for licensing / patent protection	Invoice assignment contract/loan contract
Advantages	No risk, since there is no expectation of return	Low risk (associated with possible default and risk of fraud with a loss of value)	<ul style="list-style-type: none"> - Share of risk-return - Unlimited potential for financial gain - Attracts a large number of investors 	<ul style="list-style-type: none"> - Predetermined rate of return between lender and borrower. - Offers a more structured exit option. 	<ul style="list-style-type: none"> - Potential gain is unlimited, but the rate of return is pre-fixed - Has less risk and return than equity investment, but is more than a debt instrument 	<ul style="list-style-type: none"> - Risk limited to the invoice value. - Possible guarantee on the invoice customer and the invoice itself. - Greater investor diversification
Disadvantages	<ul style="list-style-type: none"> - Donors do not have a real guarantee - Difficulties for high values 	<ul style="list-style-type: none"> - Potential return is small. - There may be a difficulty for high values without a mass product 	<ul style="list-style-type: none"> - Potential loss of partial/total investment. - Equity is subordinated to creditors if it becomes bankrupt. - Related laws can be complex 	<ul style="list-style-type: none"> - High failure rate of start-ups bears risks identical to capital investment loss but with limited return - Requires an established business with positive financial flows 	<ul style="list-style-type: none"> - Risk of loss comparable to capital investment, but the return on capital investment is lower. - risk of the company operating without paying for intellectual property licences - Poor attraction of investors - Poor attraction of developers 	<ul style="list-style-type: none"> - Amount invested is less than the value of the invoice. - Selection of desired invoices leads to less capital raised

Table 1. *Snapshot of the different crowdfunding models (adapted from World Bank (2013) and Hossain e Oparaocha (2017))*

Furthermore, CF platforms can opt for the models "all-or-nothing" or "keep-it-all". In the all-or-nothing" model, the promoter only has access to the value raised if the initial pledging goal was attained. This mechanism intends to encourage the promoter to request the minimum capital necessary, to increase the probability of its achievement (Gerber *et al.*, n.d.; Massolution, 2015; Wash and Solomon, 2014). In addition, it also intends to provide some guarantees to funders, as funds will only be transferred if there are expectations that the resources collected are sufficient to start the project. On the other hand, in the keep-it-all model, the promoter can receive the entire amount raised in the campaign, regardless of the percentage of the initial pledging goal was attained or not (Cumming *et al.*, 2020; Massolution,

2015). As this option offers fewer guarantees to investors/donors on the usefulness and suitable application of the funds to be provided (that could not be sufficient to launch the project and therefore undermine its feasibility), keep-it-all models may involve higher CF costs. Notwithstanding, this method has been widely used in campaigns related to social causes.

In crowdfunding, the entrepreneur interested in obtaining funding creates a campaign that allows the concretisation/implementation of the idea, project or event through an intermediary (digital platform) that makes the campaign online and publishes it in social media to attract the maximum number of donors/investors to support it. In return, the entrepreneur may give symbolic or monetary returns to supporters.

Accordingly, the crowdfunding process essentially involves three actors (Belleflamme and Lambert, 2016), as illustrated in figure 2: (i) the promoters of the project or activity (beneficiaries or crowdfundees), (ii) the funders (investors/donors or crowdfunders) and (iii) the digital (online) platform, which act as intermediary between the promoters and the funders.

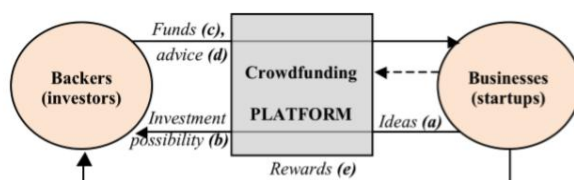


Figure 2. The crowdfunding process. (Valanaene & Jegeleviciute, 2014)

The beneficiaries (crowdfundees) could be any individual or collective person, national or foreign, interested in raising funds for his/her project or business through a crowdfunding platform (Dibrova, 2016).

Crowdfunders are donors/investors who seek a meaningful way to contribute to the funding of a given project and expect to receive a tangible or intangible return on their investment/support (Baber and Fanea-Ivanovici, 2021; Chen *et al.*, 2021; Smirnova *et al.*, 2020). They may be individuals or collective persons. Given the nature of crowdfunding, the number of investors involved during the campaign period is inevitably unknown. Depending on the crowdfunding modality, financiers can be seen as donors, buyers, lenders or even partners/shareholders of the company promoting the project or activity.

CF Platforms are the managing entity, holding legal personality and representing the crowdfunding platform. The main function of digital crowdfunding platforms is to create an online community that triggers beneficiaries and funders and aims to facilitate the interaction between entrepreneurial initiatives and potential investors (Belleflamme *et al.*, 2014). According to the (European Commission, 2016), a platform is defined as an internet-supported financial marketplace, presenting new

opportunities, bringing both halves of the market (funder and beneficiary) together and offering online funding opportunities to the public.

METHODOLOGY

This research aims to draw a picture of the CF platforms acting in Portugal and the way they develop their activity. As specify objectives, the communication aims to understand: (i) the type of business model used by the different CF platforms in Portugal and to whom the financing operations are targeted; (ii) the level of activity that the different platforms have been able to achieve in Portugal; (iii) the sources of income generation used by the CF platforms and; (iv) the level of profitability that the operations pursued by CF platforms in Portugal have been able to generate.

In the research process different sources of secondary information were used. Firstly, desk research was carried out by consulting the website of the regulatory entities in Portugal and the website of the different platforms, publications and reports about the topic, as well as the consultation of the waybackmachine, a global digital archive of webpages. After that, the researchers have used databases of financial information, such as Sabi and e-informa. The process and data collection took place between September and December 2020.

ANALYSIS AND RESULTS

The crowdfunding sector in Portugal

Since 2009, several CF platforms have started to operate in Portugal, offering entrepreneurs the possibility to raise funds from an undefined group of online investors ("the crowd"), who are seeking investment opportunities and/or causes to support.



Figure 3. Crowdfunding market in Portugal (Adapted from Ziegler et al., 2020a)

In 2017, the volume of CF operations in Portugal was €8.73 million, a significant increase of 97% compared to €4 million in 2016. Nevertheless, this value represents only 0.3% of the volume generated in the European region (Ziegler *et al.*, 2020).

CF platforms in Portugal

The analysis of Table 2 shows that existing platforms explore different modalities of CF. Some of them explore loan-based CF (Querido Investi, Raise, GoParity, and Housers) and others rewards and donation-based models (NovoBancoCrowdfunding, Esolidar, and PPL). There is no active platform in Portugal working with the equity-based or royalty modality.

Regarding the modalities of the platforms in operation, we observe that Querido Investi, Raise, GoParity and Housers opted for the all-or-nothing model for the crowdfunding campaigns. In contrast, PPL adopted two modalities, the all-or-nothing" model was used for regular projects and the keep-it-all method is used only for social projects. The platform Esolidar, also adopted the keep-it-all model. Differently, the platform novobancocrowdfunding opted for the all-or-nothing model, although the platform benefits the projects that were successful with an increased amount of 10%, under the social responsibility policy of the bank that owns the platform (Novo Banco).

All platforms have their headquarters located in Lisbon, except the GoParity and Esolidar, whose headquarters are located in Oporto and Braga respectively, and Housers, which is owned by a Spanish company and is based in Madrid.

Analysing the type of promoters to whom the platforms are targeted, we may observe that the Querido Investi, Raise, GoParity and Housers platforms essentially seek companies. Inversely, the PPL platform makes no distinction and looks either for companies and for individuals. The novobancocrowdfunding, given its specific characteristics, does not seek crowdfundees proactively, but accepts applications from promoters whose campaigns are created in social areas, such as IPSS, NGOs, associations and parish centres, among others.

The promoters' target of Esolidar are NGOs and Associations. By analysing Table 2, we further observe that the platforms act in different areas or intend to pursue different objectives. PPL's main goal is to support entrepreneurial, creative and cultural projects, but it has been increasingly supporting social projects, that already represents a significant percentage of the campaigns carried out. However, the platform's managers make it clear that they can refuse campaigns that do not reflect the culture of the platform. The novobancocrowdfunding aims to support social projects previously validated by the platform staff. The Queridoinvesti, Houser and Goparity platforms have in common the goal of making investments profitable, the first and second platforms in the real estate sector, while the third platform works in the sustainable development and energy efficiency sector. Raize is oriented towards three main areas, treasury financing, Small and Medium-sized Enterprises' (SME) investment and

financing based on advanced payment of invoices. The Esolidar platform aims to raise funds online in a fast, effective and low-cost way, actively involving the community.

Given the nature of the activities developed, Querido Investi, Raise, Seedimo and GoParity platforms are registered with the Securities and Exchange Commission (CMVM), the PPL and novobancocrowdfunding platforms with the Directorate-General for Economic Activities.

Platform	CF modality	CF model	Headquarters	Target: promoters	Areas/objectives
Querido. Investi	Loan based CF	All-or-nothing	Lisbon	Companies	Return on investment in real estate assets
Raise	Loan based CF	All-or-nothing	Lisbon	Companies	Financing treasury, investment and advanced payment of invoices
GoParity	Loan based CF	All-or-nothing	Oporto	Companies	projects in the area of sustainability and energy efficiency
Novo Banco - Crowdfunding	Donation and reward-based CF	All-or-nothing + 10% if successful	Lisbon	IPSS, NGOs and other non-profit organisations	Social projects previously validated by NOVO BANCO
PPL	Donation and reward-based CF	Keep-it-all + All-or-nothing for social causes	Lisbon	Individuals and Companies	entrepreneurial, creative and cultural projects; campaigns that do not reflect the values of the platform are rejected
Seedimo	Equity and loan based CF	All-or-nothing	Oporto	Companies: real estate promoters	Return on investment in real estate assets
Housers	Loan based CF	All-or-nothing	Madrid	Companies	Return on investment in real estate assets
Clicinvest	Loan based CF	All-or-nothing	Lisbon	Companies	Financing for SME's
Boaboa	Reward-based CF	All-or-nothing	Lisbon	Individuals and Companies	Support for projects in entrepreneurship and social innovation, academia and R&D, culture, citizenship and participation;
Esolidar	Donation and reward-based CF	Keep-it-all	Braga	ONG's and other non-profit organisations	Online fundraising: fast, effective and low-cost way to actively involve the community
Izilend.pt	Equity and loan based CF	All-or-nothing	Lisbon	Companies	Return on investment in real estate assets

Table 2. Summary of the Portuguese platforms (own elaboration)

To understand the feasibility of the operations of collective funding pursued by the different platforms in Portugal, the authors had collected some financial information. The analysis of Table 3 indicates that the PPL Platform presents the lowest value of the capital stock, of 11,000 euros. The remaining

platforms have higher capital stock - Raize and GoParity (50,000 euros) and Querido Investi (89,100 euros).

Raize had the highest turnover in 2019, with a value of 556,424 euros, followed by PPL, with a value of 180,700 euros. The remaining platforms have a considerably lower amount of turnover - Goparity (44,460 euros), and Querido investi (3,248 euros).

In terms of net income in 2019, the situation is different, since the highest amount of income is owned by the PPL platform, with a value of €18,251; in second place is the Goparity platform, with a value of €797. The remaining platforms show negative results - the Raize platform, with a negative value of €56,611 and Querido investi, a loss of €37,821.

Concerning sales, we highlight the good result of the PPL platform, as it was the only Portuguese platform that was capable of selling its services internationally, a value that represents 35,276€ of its total turnover. The remaining platforms make their sales exclusively in the domestic market.

In terms of human resources, Raize has the largest number of employees (5), while Goparity and PLL both have three employees. The Querido Investi platform does not have any employees.

Regarding the number of campaigns completed in the Jan-Oct-2020 period, we see that Raize had the highest number (329 campaigns), although there is no information regarding the average value involved per campaign. The PPL platform had a value of 103 campaigns, with an average value of €3,534 per campaign. The remaining platforms were able to perform a significantly lower number of campaigns. Goparity carried out 24 campaigns, while novobancocrowdfunding and Querido Investi, have achieved 6 and 2 campaigns, respectively.

Only two platforms provided information about the campaigns' success rate. PPL have observed a success rate of 44% and novobancocrowdfunding 59%.

In terms of the number of supporters, the platform with the highest number of supporters is the PPL platform, with a value of 146,859, followed by a considerable distance by Raize, which has a value of 59,901, and the Goparity and NBcrowdfunding platforms, which have a total number of supporters of 8,056, and 10,943, respectively.

Concerning the methods of payment used, the Querido investi and Goparity platforms rely on the same institution - Mangopay. The Raize platform has a payment company in its capital structure. PPL is the platform that provides more payment methods, namely credit card, PayPal, bank transfer, MBWay, Multibank and Payshop Agents.

PLatforms	Querido investi	Raise	GoParity	NB Crowdfunding	PPL
Capital Stock	89.100€	50.000€	50.000€	Not available	11.000€
Net income 2019	(37.821€)	(56.611€)	797€		18.251€
Revenues value 2019	3.248€	556.424€	44.460€		180.700€
National sales 2019	3.248€	556.424€	44.460€		145.424€
International sales 2019	0€	0€	0€		35.276€
Number of employees	0	5	3		3
Number of campaigns between Jan/2020 and Oct/2020	2	329	24	6	103
Rate of success	Not available	Not available	Not available	59%	44%
Average amount raised per campaign	208.550 €	Not available	47.348 €	4.201 €	3.534€
Total no. of supporters/investors	Not available	56901	8056	10943	146859
Payment methods	MangoPay S.A -	Raize – Payment Institution, S.A	MangoPay S.A	Payment by Multibank, bank transfer Pay Pal	Credit card, PayPal, Bank transfer, MB Way, MultiBank, PayShop

Table 3. A resume of the platforms' operational and financial activity (own elaboration)

The analysis of Table 3 reveals that the platforms have some difficulties in developing a profitable business, which suggests the challenges faced by crowdfunding in Portugal and the reduced sustainability of the sector. Regardless of the type of crowdfunding adopted, platforms charge a range of commissions for the services they provide to the beneficiaries and/or investors. There is some heterogeneity in terms of the commissions applied. The platforms' revenues are essentially linked to the initial phase of the projects, except for the Raize platform, which, since it works like a loan, can receive financial return during the loan maturity period, through the investment already made.

For the platforms Clicinvest, Izilend, Boaboa, it was impossible to find any information on the current activity and financial data. Esolidar and Sedimo only had data available for 2018 and for that reason they were not included in the analysis. Since Housers is owned by a Spanish company, it was not possible to have access to the information related to the operations only held in Portugal. Table 4 presents a comparative analysis of the commissions charged by the CF platforms in Portugal.

Platforms	Querido investi	Raise	GoParity	Novo Banco Crowdfunding	PPL
Service fee	Negotiable on a project by project basis, even if the project is not financed.	Investors (10% to 12%) of the value of the interest amount; beneficiaries 2.5% of capital + 0.25%/year	1% of the outstanding capital + a given percentage depending on the capital raised < 15 000€: 4,50% 15 000€ to 75 000€: 4,00% 75 000€ to 200 000€: 3,50% 200 000€ to 500 000€: 3,00% >500 000€: 2,50%	No costs and 10% co-financing from the bank if the campaign exceeds 90% of the pledging goal	(5% + 2.5%) + Value Added Tax of successful campaigns

Table 4. Summary of platform commissioning (own elaboration)

The platform Querido Investi applies a commission for preparing the investment dossier for all projects, increased by all expenses related to the formalisation of contracts and mortgage guarantees on the projects funded. The costs are due exclusively to the promoters, which differ from project to project and are settled when the funds raised are made available.

The "raise.pt" platform applies a service fee to the beneficiary of 2.5% + VAT (Value Added Tax) of the amount financed, plus a monthly management fee of 0.25%/year + VAT on the amount financed. At the same time, and in a pioneering way in Portugal, it applies commissions to investors of between 10% and 12% of the value of the gross interest received monthly on the capital invested.

The Goparity platform applies a variable service fee depending on the amount of capital financed. Additionally, it charges a 1% commission on the outstanding capital, paid together with the periodic instalment.

The novobancocrowdfunding platform, taking into account its social nature, does not apply any fees to the promoters of the campaigns, and also under the social responsibility of the banking institution that supports the platform, co-finances each campaign that reaches 90% of the pledging goal with 10% of the amount collected.

CONCLUSIONS

Crowdfunding platforms play an important role in bringing together the different wills of those individuals asking for funds to implement social or economic projects and those seeking investment opportunities, with or without return. The comprehension of the number of intermediaries of collaborative financing in Portugal, the characteristics of the financing operations allowed, and the level of activity achieved is critical for a better understanding of the sector in Portugal and for the exploitation of the full potential that CF is capable of achieving. The results of the analysis of the various CF platforms in Portugal suggests a prevalence of the loan based CF modality and essentially

related to the real estate sector. This specialisation strategy followed by the platforms, although interesting, may restrict the activity of the platforms, which will depend on the dynamism/performance of the sector, making the volume of activity and profitability of the platforms highly dependent on external factors.

The investigation also indicates a greater preponderance of the platforms for the use of the all-or-nothing modality, which could offer greater confidence to investors/donors who have the guarantee that if the pleading goal is not attained the value invested/given will be returned without any kind of costs for crowdfunders.

The investigation also shows that different platforms exhibit very distinct dynamism levels, involving a number of campaigns, number of supporters and financial values significantly different. It also appears that some platforms provide more statistical information on their activity than others.

Since the creation of the first platform in 2009, many others have been developed, but they did not acquire a relevant dimension that allowed them to be financially self-sustainable. One of the platforms sought to overcome financial difficulties through a strategy of internationalisation of its operations, which resulted in a positive outcome.

As a result of the analysis of the platforms operating in Portugal, it can be observed that the number of employees working on the operational activities of the platform is reduced, between 3 and 5 employees, indicating the low need for human resources to make a platform work, since they operate mainly in a digital environment. All platforms studied show modest or even negative financial results for the year 2019, revealing some difficulties in the economic sustainability of the platforms.

This study contributes to a more systematized understanding of one of the most important actors in the CF industry - the platforms that act as intermediaries and mediators between people asking for funds and investors available to support them. Understanding the dynamics of the different platforms and confronting the results achieved is important for platforms' managers that can learn and better understand the competitors behavior. This can lead managers to make more effective decisions and government officials to design better public policies to support crowdfunding in Portugal. Mapping the different platforms, as well as the modalities of CF allowed and the characteristics of the operations is also important for both entrepreneurs and investors that can be aware of the platforms that are best suited to their needs and to increase the liquidity and attractiveness of the CF market in Portugal. Through the investigation conducted, we see that CF in Portugal is still in an embryonic stage of development, and further academic and practical contributions are needed to trigger the growth and dynamic of the sector.

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THE MANAGEMENT OF DIGITAL TRANSFORMATION IN GERMAN COMPANIES – AN EMPIRICAL ANALYSIS

Britzelmaier, Bernd; Kurz, Friederike; Kraus, Patrick; Holder, Sina

Business School, Pforzheim University, Pforzheim, Germany

ABSTRACT

Digital transformation is an omnipresent topic in business that has been on the rise for several years. Incorporating it is a crucial factor for companies to ensure competitiveness and secure a company's existence. Looking at the state of digital transformation in companies yields diverse results and the question how to manage it remains open. To date no generally accepted approach to a holistic management of digital transformation has been found. This paper examines the existing conceptual approaches and their use in practice. For this purpose, expert interviews with eight German companies have been conducted. The findings show that digital transformation is still a very young research topic. Theoretical approaches are limited and can thus only be seen as a first step to manage digital transformation. They should be further developed and extended in the future. Most of these approaches are also used in theory, however in a more simplified version. Nevertheless, a holistic management approach only exists occasionally. The companies put their focus less on the instruments applied themselves but more their content and handling. Therefore, only few plan to adjust their implemented instruments. As a result, a specific instrument for the management of digital transformation is not necessarily required.

Keywords: digital transformation, digitalization, German companies, management control, holistic management, performance management, management control instruments

1 INTRODUCTION

Digital transformation is becoming an increasingly crucial factor to sustainably ensure competitiveness and the existence of business firms. As the examples of digital innovations within businesses such as Amazon, Uber and Mr. Spex have shown, market and competition rules as well as industry structures are changing rapidly (ICV, 2018). Alongside new business models, the modification of products and processes in the context of digital transformation is an omnipresent topic (Hess, 2019). Additionally, with a rise in customer power due to improved information transparency and the uncertainty regarding a profitable use of fast progressing technologies (Tschandl & Kogleck,

2018), companies face significant entrepreneurial challenges. Therefore, they have to profoundly question their current business model and think about the changes digital transformation may require. Observing the intensity with which companies have engaged in digital transformation leads to diverse results (Hess, 2019). Whereas some have started single projects with respect to digitalisation, others have already incorporated it in various ways. This leads to the question how digital transformation can be approached systematically and how it can be managed (Hess, 2019). It is common practice to make use of traditional controlling instruments but is this still contemporary and are there any constraints regarding their appropriateness (Schallmo, 2019)? In the last years, a few conceptual approaches have been developed, especially by Horváth & Partners (2018) as well as several consulting companies, on how to manage and control digital transformation. In this context a modicum of instruments based on IT controlling have been designed with respect to the specific characteristics of digital transformation e.g. increased uncertainty and agility. Some scholars have looked at the management of digital products, others, however, have focussed on the company as a whole alongside its life cycle. Moreover, a functional and process-oriented reconciliation of controlling instruments with digital goals is recommended. Thus, an adjustment of KPIs might be necessary to control the strategic initiative's efficiency and effectiveness (Schallmo, 2019). To date no generally accepted approach regarding the holistic management of digital transformation has been found and each approach shows advantages and disadvantages. Furthermore, there is a lack of studies addressing the implementation of the conceptual approaches in practice.

This paper examines the conceptual approaches in the context of the management of digital transformation by addressing especially the digitalisation's impact on companies, the alignment of the approach to controlling as well as dimensions and instruments required for management. Based on the research gap regarding the application of the conceptual approaches in practice, the following research question is at the very core of this research: *Are the conceptual approaches to a holistic management of digital transformation already present and used within the company's orchestra of management instruments?*

The remainder of this paper is organised as follows. Section two will clarify terminological foundation and relevant understandings of the phenomena under research. The literature review will be presented subsequently. Afterwards, the research method and data collection are addressed. The fifth section will align the findings with section three and lead to recommendation in the following section. The final section deals with a conclusion in conjunction with a future outlook.

2 LITERATURE REVIEW

2.1 Digital transformation

To date there is no universally accepted definition for “digital transformation” in literature. Therefore, various terms such as “industry 4.0”, “digitalisation” and “digital transformation” are partly used synonymously (Schulze, Nasca & Eymers, 2018). Observing this in an international context not only a difference between “digital transformation” and “digitalisation” can be found but the latter can also be further differentiated (Nasca, Munck & Gleich, 2018). Hanna (2016) defines them as follows: Digitisation comprises the simplest form of conversion from analogue to digital information and processes whereas digitalisation consists of the improvement of business processes and/ or business models based on digital technologies. Digital transformation designates the structural change in economy and society by employing the maximum technological potential with the aim to construct an intelligent economy and society (Nasca, Munck & Gleich, 2018).

To further clarify the differences in understanding, selected company definitions have been reviewed. Bowersox, Closs and Drayer (2005) describes digital business transformation as a mechanism to define business anew, digitalise processes and extend relationships over the whole supply chain. The challenge therein is “[...] to capture the full potential of information technology across the total supply chain.” Gartner (2019) uses the term digital business transformation as well but focuses on the creation of a digital business model via digital technologies. The application and establishment of new technologies in context of a continuous change is also in focus of KPMG’s (2014) definition, which is, however, referred to as digital transformation. In contrast Capgemini (2011) views the use of technology solely as a means to address business dimensions to increase performance. Following the different key aspects in the aforementioned definitions a combination of them has been derived as a working definition for this paper. Thus, digital transformation is understood as the continuous change as well as improvement of business models, processes and relationships by use and introduction of digital technologies along the supply chain with the aim to increase company success.

Digital transformation can be analysed on a macro and a micro level. Whereas the micro level is concerned with the behaviour of individual agents on the market and includes value-added processes as well as relationships of a single company, the macro level incorporates the total ecosystem of market, especially suppliers, consumers and their relationship (Oswald & Krcmar, 2018). Looking at it from an overarching perspective, four characteristics describe a digital transformation process:

- inescapability,
- irreversibility,
- enormous rapidity and
- uncertainty in execution (Oswald & Krcmar, 2018).

Due to trends in society and economy companies face challenges which cannot be solved without digital technologies (Oswald & Krcmar, 2018) and at the same time a threshold in their efficiency, cost and availability is reached at which many problems that are analogically irresolvable can be solved. Consequently, a change in business is inevitable (The Economist, 2014). Given the introduction of new technologies, digital transformation is irreversible but uncertain in its execution at the same time since the high dynamics in many branches complicate to forecast which solutions and companies will be successful in the future (Oswald & Krcmar, 2018). Thus, Hess (2019) states that digital transformation has to be controlled and flanked in a systematic way. Moreover, Iansiti and Lakhani (2016) underline the importance of rapidity by denoting it as the new normal which requires many established companies to define themselves anew and continuously adapt to stay competitive. This further proves that digital transformation is a permanent trend (Iansiti & Lakhani, 2016; Hess, 2019).

Apart from the four characteristics companies have to deal with central challenges regarding digital transformation. A specifically developed management which channels initiatives and uses the existing organisation's departments e.g. to implement new business models is required (Müller et al., 2018). Additionally, a structured strategy (Berghaus and Back, 2016) as well as the integration and harmonisation of processes (Berghaus et al., 2015) is of essence. Next to the conversion to agile methodologies (Berghaus et al., 2015), a further difficulty lies in raising the employees' awareness regarding the importance of digital transformation (Berghaus et al., 2015). As more challenges arise in conjunction with industry-sector-specific trends and different main focuses, the impact and speed of digital transformation varies. Thus, each company needs to deal with it individually (Hess, 2019).

Within a company, digital transformation can be subdivided in two classes: the changes in the operative business and the management of digital transformation (Hess & Barthel, 2017). Since changes in the operative business have already been discussed in literature intensively, the focus is on the latter aspect. The management of digital transformation contains the duty to establish preconditions to recognize the opportunities and risks of digital transformation, to set the individually correct focus and to put the corresponding projects into practice in its core (Hess, 2019). Hess further splits up the term into three subareas. In the centre are digitalisation projects with which IT-based innovations are produced and realised. This can only happen, however, when all prerequisites e.g. the necessary resources and infrastructures are available (Hess & Barthel, 2017). Furthermore, each company has to define its individual agenda for a digitalisation project which should be summarised in an overarching digitalisation strategy which serves as a strategic orientation framework for the ongoing course of action and has to be aligned with other strategies of the company (Matt et al., 2015). As already stated, the management of the internal digital transformation is conducted with the help of adequate instruments to ensure control (Schönbohm & Egle, 2017). One of these instruments is the

project portfolio analysis which requires a measurement of projects based on benefit and the simplicity of implementation. Due to a variety of uncertainties which can influence the projects (Hess, 2019) precise planning is limited and companies have to take on a larger amount of risk and react to a high degree of dynamic changes (Hess, 2019). Thus, Müller, Schröder and von Thienen (2018) recommend the additional use of the dimensions suggestibility und the intensity of influence on defined strategy goals next to the classical ones which is done in a transformation matrix that illustrates interdependencies between projects. After the assessment projects are classified as critical, active, passive or neutral projects (Müller et al., 2018). Out of this result another matrix can be created to define a “transformation path” alongside the projects.

In contrast to classical project management methods digital transformation projects cannot be planned precisely. It is all the more important to assess the future benefit of the project outcome in a dynamic as well as iterative manner and use solution approaches from agile project management (Vigenschow et al., 2015). According to Müller, Schröder and von Thienen (2019) the focus should be on a qualitative assessment of the project success in the starting phase in addition to the possibility of failure. This can be presented in the “Fail Fast Framework” which incorporates the following aspects: authorisation, iterative assessment, project cancellation, quantitative assessment at adequate certainty and iterative benefit management with classical investment appraisal. After each iteration a ratio, the Fail Fast Indicator, for the cancellation or reintroduction decision is identified. Then the change in percent to the previous project rating (Fail Fast Chance Score) and the average of three iterations (Fail Fast Indicator) is measured. If the Fail Fast Indicator surmounts an individually set threshold the project should be cancelled. As soon as the project maintains a positive Fail Fast Indicator over six months a systematic and monetary benefit assessment using classical methods follows.

Digital business models deal with the same economic questions as classical business models. However, the weighting of the criteria shifts from liquidity and growth to profit and profitability with an increasing level of maturity in digital business (Sieringhaus, 2019). Thus, the challenge in management lies in the changed structure of digital business models and the cost structure of digital products (Spitzpfeil & Adelt, 2015). As digital business models have to be assessed holistically, it is necessary to observe the life cycle to demonstrate an effective management instrument. In the initiation phase the focus is on brainstorming and creation of solutions for which an assessment in the context of a business canvas is sufficient. Critical KPIs are the overall budget and the growth rate (Sieringhaus, 2019). Only with increasing precision of the concept and market penetration does a classical business case become more important (Pendell & Prüße, 2019) and serves as a substantial management tool for digital product and project portfolio in the context of a business model. As detailed cost planning for digital products would already be outdated at the time of its completion in

the worst case (Deloitte, 2018) either a rough classification of costs according to a reference product, an expert opinion or a planned cost framework can be used. Cost calculation for e.g. a digital platform is, however, much more complex than for a physical product (Pendell & Prüße, 2019). Based on the business case is usually the target cost management which secures the margins from the business case for a cost point of view and ensure that the pursued product functions are financed. Thus, it focuses on cross functional cost work in the life cycle phases. In the saturation stage the product break-even-analysis is used to analyse and control the profit contribution and the profitability of digital products (Sieringhaus, 2019). Generally, the life cycle calculation acts as a link between the illustrated instruments with the aim to present full costs according to the business case logic and the total cost of ownership method.

Observing the presented methods, it becomes apparent digital transformation requires the specific adjustment of management instruments. Due to the limited research of this topic only few suitable methods could be identified in the course of the literature research. In the following they will be assessed on their main strengths and weaknesses. As for the Balanced Scorecard, subjectivity is a challenge for the Digital Cockpit and the evaluation radar. Since the selection of dimensions used and the definition of strategic goals is specific to the company an objective comparison is not possible. Moreover, a monetary interpretation of non-monetary KPIs can be impossible or very difficult (Schönbohm & Egle, 2017). Nevertheless, both methods are appropriate. Parts of the portfolio analysis, such as the dimensions for the transformation matrix, are subjective as well. Therefore, paying attention to their weighting is crucial. Another challenge in this case lies in the determination of the benefit since the portfolio analysis is subject to high risk (Hess, 2019; Müller et al., 2019). In contrast, the instruments of project management are assessed by independent parties which ensures objectivity. In turn, it also requires a higher effort. Moreover, the determination of a specific minimum score for the Fail Fast Indicator has to be viewed critically. be seen as a good basis for the management of digital projects.

As already stated, the topic of this research is comparably new and thus there are only few methods regarding a holistic management. Usually, the main focus is on the implementation of new KPIs via the Balanced Scorecard. Although all methods demonstrate gaps concerning practical implementation, they can still be applied as a first step towards the management of digital transformation.

2.2 Digital transformation, management and control – empirical study

To review if digital transformation does not only influence the value-added process but also the manner of company management and decision making as stated by Gläser and Laudel (2010), several studies have been conducted in the last years. Among the most significant in this area are “Controlling of digital business models 2018” by Deloitte (Deloitte, 2018) and “Management of digital business

models” by Horváth & Partners (Horváth & Partners, 2018). Additionally, the CFO study 2019 by Horváth & Partners (Horváth & Partners, 2019) and a research project (ICV, 2018) of the Steinbeis Hochschule Berlin in cooperation with the International Controller Club (ICV) present valuable insights. All four studies considered in this context comprise between 40-100 participating companies from various branches in German speaking countries. According to the ICV study the relevance of digital transformation for companies is omnipresent. Although 72 percent of the participants describe their industry as strongly affected by digital transformation only 27 percent see their company as well prepared for the upcoming changes (Seufert et al., 2018). Deloitte’s 2018 study shows a similar picture with less than 18 percent already pursuing an established digitalisation strategy and 68,6 percent currently building their strategy. In contrast to that, nearly a quarter of the companies run a digital business model and additional 52,9 percent are in the creation phase. This demonstrates that companies have recognised the importance of a holistic strategy. When looking at possible forms of digital transformation in companies the majority of 78 percent focusses on the digitalisation of existing business processes, followed by the creation of new business models of existing products with 64 percent. New potential competition due to new digital companies, however, is ranked lower by 45 percent. Horváth’s CFO study supports this weighting since its participants view the automatization and standardisation of processes with 99 percent as one of the crucial drivers for improved effectivity and efficiency (Horváth & Partners, 2019). Regarding the management of digital transformation, the studies of Horváth and Partners (2018) and Deloitte (2018) yield that for digital business models primarily KPIs (70 percent) concerning the influence of the management model in the context of digital transformation have to be adjusted. This is caused by the shift in focus on the consumer and his data, which increases the importance of market and customer-oriented KPIs. Approximately 75 percent of the participants support this notion as well. Moreover, project-oriented KPIs are viewed with increasing significance which can be explained by project management that is becoming more agile. In comparison to that the weighting of financial KPIs changes only to a small extent (Deloitte, 2018). As already aforementioned in this section there are additional management instruments apart from KPIs. According to the companies the Business Case calculation is the most important instrument since it enables an overview of the forecasted revenues as well as the costs of digital products. In combination with the scenario analysis, it represents the most used management model for the initial assessment of projects. Further, target cost management is classified as important or very important with 60 percent.

Summarising the discussed studies, it can be stated that digital transformation is already present in the majority of companies in form of digitalised business processes, products and business models (Seufert et al., 2018). As the study by Deloitte (2018) has shown many companies have already realised

that that the future challenge lies within the dynamic of the requirements of customer and the market. Thus, it is the management's responsibility to implement the identified modifications to the management instruments individually for their company to remain competitive.

3 RESEARCH METHOD AND DATA COLLECTION

Researchers can use methods of empirical data collection to describe the reality and investigate a special topic (Döring & Bortz, 2016). It is generally differentiated between two types of measurement and evaluation; quantitative and qualitative research methods (Brosius et al., 2012; Bryman & Bell 2015). Qualitative research interpretatively processes verbal or non-numerical data and often describes a complex phenomenon in its entire breadth. In contrast, the analysis of measured values in the quantitative approach is carried out statistically and numerically (Döring & Bortz, 2016; Brosius et al., 2012). Due to the uncertainty concerning management control of digital transformation in companies, quantitative research would be unrewarding since general knowledge needs to be explored first. Therefore, the acquisition of expert knowledge seems to be the best choice. For this reason, the expertise of experts will be the focus in order to identify and analyse the limited knowledge of management control of digital transformation in companies. This justifies the use of expert interviews, although authors like Fischer (2006), Sedlmeier and Renkewitz (2013) consider them as problematic because of the lack of the sample's representative status.

With regard to the research philosophical considerations, this paper is situated in an interpretivist paradigm. The focus on expert knowledge in combination with the understanding of subjective knowledge and the context-dependent design enables the observation of situational details of social phenomena (Saunders et al., 2009).

Expert interviews are part of the category of qualitative interviews (Bryman and Bell, 2015). Brosius et al. (2012), Alvesson and Ashcraft (2012) as well as Flick (2014) make clear that open questions are to be preferred in qualitative methods, because they lead to answers with larger amounts of text and thus to new knowledge. Due to the novelty of the topic, it is advisable and necessary to interview experts from various areas. Thus, the intention to obtain a holistic picture of the research object can be taken into account. A multi-perspective approach is selected for this purpose and company internal and external interviewees were chosen.

For the study, an appropriate sample needs to be determined, which Homburg (2015) defines as the amount of those objects from which information is to be gained in context of the research. In order to obtain as significant results as possible in the limited timeframe of this paper, the target group has been confined to companies that already deal with the topic of digital transformation actively. The location of the companies, which has been restricted to Southern Germany, is a further criterion to

ensure the possibility of conducting the interviews face to face. Due to the difficulty to find the correct contact person or to attain the forwarding of an interview enquiry to the corresponding expert, mainly personal contacts have been used as interview partners. Additionally, experts have been searched for via Internet portals (Xing, LinkedIn), search engines (Google) and nationwide competitions. Moreover, it has been ensured that the sample contains different corporate forms (AG, GmbH, Genossenschaft) and company sizes (revenue, number of employees, etc.) to represent the population best possible. Of the 29 companies contacted in total experts of eight companies agreed to an interview. In light of the selected qualitative research method the sample size can be considered appropriate given the availability of resources (Baur & Blasius, 2014) and is in line with typical sample sizes used in qualitative research (Kvale & Brinkmann, 2009; Saunders, 2012).

Company	Corporate form	Selection criterion
Company A	GmbH	Personal contact
Company B	GmbH & Co. KG (Family-owned enterprise)	Personal contact
Company C	GmbH	Contact colleague
Company D	AG	Digital Leader Award
Company E	GmbH	Search engine
Company F	GmbH	Internet portal
Company G	AG	Personal contact
Company H	GmbH	Personal contact

Table 1. Sample overview

After conducting and transcribing the interviews, the information obtained was evaluated. For an analysis of such large amounts of data obtained by expert interviews, the literature pleads for the method of qualitative content analysis (Mayring, 2016; Meuser & Nagel, 2005; Bryman & Bell 2015; White & Marsh 2006), which was also used.

4 FINDINGS AND RECOMMENDATIONS

4.1 Digital transformation

How companies see digital transformation

Digital transformation takes up an important role in nearly all companies. However, the understanding and the progress on how digital transformation is handled is still very different. Similar to theory the majority of companies does not have a uniform definition for digital transformation but uses the terms “digitalisation” and “digital transformation” often synonymously instead. While company G describes digital transformation as a journey on which companies have to

embark on to apply digitalisation in all departments in a company beneficially, company D understands it solely as technology driven process reengineering. Generally, all interviewees agree that companies have to adapt to the new rules of the game on the market, that adjustments to new circumstances are necessary and that digital transformation is not only an internal topic but also a product, market and customer related subject. On the question regarding the shapes digital transformation can take, it was mainly distinguished between two aspects. Firstly, the internal digital transformation, which comprises the optimisation of internal processes, the implementation of IT processes and the development of digital products, was named (Companies A, B, C, D, F, H). As a second aspect the launch of digital business models with digital solutions was addressed (Companies B, F, G, H). Thus, out of the old business model a new set has to be created which is concerned with the digital product and service portfolio.

Development stages in companies

Five out of the eight companies classify themselves between the levels of digital isolated applications and digital strategy in terms of their current development stage. A majority of companies has already tested first digital solutions in isolated areas in the context of pilot projects, has implemented them and now strives towards extensive application. Simultaneously, four of the participating companies are working on the definition of a digitalisation strategy whereas in enterprises B and G it is already existing. In addition, companies G and H are convinced that digital transformation is not possible without a strategy since a target and regular checks over time if everything is working correctly towards the target achievement is of importance. As the strategy implementation is not completely concluded in any of the companies, all interviewees deem the improvement potential as high. Companies D and F support the thesis that digital isolated applications and a digitalisation strategy can be executed at the same time. This can be explained by the fact that companies first want to test e.g. a forecasting process in representative business unit for a selected region before implementing it for all areas and regions. Thereby, problems can be identified early and costs can be saved. Moreover, it was critically noted that a generic digitalisation process is not always followed as not all companies use isolated application before developing a strategy. Due to this the participants utilize two approaches concerning strategy development - top-down and bottom-up. Three enterprises (A, G, H) pursue a bottom-up strategy, which only implements a strategy after and on the basis of single explorative pilot projects in various departments. In contrast, company C follows a set five-year plan with different digital transformation projects. A combination of both can be found in companies B, D and F, which use a central digital transformation department that initiates projects top-down. Simultaneously, bottom-up pilot projects can be initiated in form of isolated applications as this allows to work closely with the departments and pay attention to details. After successful implementation

these projects can lead to a holistic strategy. When looking at the development stages the companies classified themselves their size needs to be considered. According to all interviewees all bigger companies have already developed a digitalisation strategy or defined structured strategy processes and have thus positioned themselves actively on the market. For the medium-sized enterprises the picture is mixed since many customers still face basic challenges and have not started with digitalisation. A further reason is the cost aspect as the focus of smaller companies is still on revenue whereby investment for a holistic digital transformation is slower compared to bigger companies with higher budgets.

Opportunities, risks and challenges

When asked which opportunities the companies expect to benefit from digital transformation, all uniformly named the possibility of an efficiency gain due to the standardisation of processes and the digitalisation through process automation. Thus, employees have less manual work and can assume other duties. Moreover, complexion is reduced. 50 percent of the companies connect a gain in efficiency with an increase in effectiveness as many processes can be conducted more favourable due to the new technologies. In addition, production costs of digital products decrease in comparison to physical products. Furthermore, the expansion of the product and service portfolio is seen as an opportunity of digital transformation to develop more offers along the customer life cycle and the share-of-wallet can be raised. Increased flexibility and data quality enhancement were only named by one company.

Transforming the whole enterprise, which is an effort and costs money, is a risk that is inevitable. Nevertheless, all companies agree that this change is unavoidable due to pressure from the competitive environment. This goes along with the risk to miss digital transformation in the own industry and consequently drop out of the market. Beyond that, there are several uncertainties since it is not clear yet whether a complete process automation will entail the desired advantages. Parallely, the lack of experience concerning which digital products are accepted and required by customers presents an increased risk companies take on.

The challenges of digital transformation go hand in hand with the aforementioned opportunities and risks. Companies B, F and H named the standardisation of processes and systems as the main challenge. This results on the one hand from historically built constructs and on the other hand from basic topics such as data quality or technical implementation. Additionally, the aim which is to be reached by digital transformation or digital products is still unclear to many employees. Consequently, internal resistance arises which can lead to significant problems (Companies B, G). There are further challenges regarding employees. Digital transformation projects require a project coordination that concerns several departments. Thus, employees from different departments have to

work closely together to create synergies. Simultaneously, according to five out of eight companies this type of agile projects involves an adjustment of the mindset. Companies G and H have additionally stated that the handling of failure is a further challenge since not reaching the exact goal that has been determined in the beginning has to be allowed for agile projects. This, however, is not directly connected to the digital transformation of companies but more to the use of agile methods.

4.2 Management of digital transformation

Management control process

Generally, an enterprise has to establish an organisation by which future actions are taken concerning a holistic management of digital transformation. For this purpose, companies A, B and D have created a central department with a focus across the group to address this topic. Employees working in business units are sent to this department for joint development and testing before the results are implemented company-wide. In the remaining interviewees' companies' projects are initiated on an operative level and implemented by teams with a clear business unit focus. This enables a higher degree of liberty for explorative thinking according to company F. In light of a management committee company A and B have introduced a new format for digital transformation. While in company A business units directors deal with reports on digitalisation projects every two months, the CFO and the corresponding controlling directors in company B meet biweekly. Apart from these companies, half of the participants do not think that a management committee is necessary. Company D justifies this with the loss of momentum and speed in decision making. The integration of the topic in the existing structure would thus serve as a solution (companies C, F and H).

Instruments for digital transformation

Since the management of digital transformation is not treated as something entirely different than the standardised controlling, the same instruments can be used with small adjustments according to companies B, G and H. The great difference lies in the content. Concerning the internal digital transformation, the substantial difference between digital transformation projects and classical projects is that the former are conducted cross-functionally and are thus more complex as 50 percent of the companies believe. In addition, there is currently a change occurring in project management. In the past the waterfall model was used. Companies B, F and G still apply this method to date as they do not see a direct connection between agility and digital transformation. Therefore, there is no significant difference in the management. In contrast, companies A, D, E and H work with an agile method including an upstream user experience phase which focusses on the customer in the beginning. It has to be noted that due to missing empirical values the uncertainty and risk is very high and this has to be accepted in order to obtain the best result possible (companies A, C and H). With

regard to the cost accounting two out of the eight companies use it in a more superficial and flexible way to increase the level of freedom in conjunction with flexibility. Companies B and G, however, adhere to the detailed view to ensure budget control. The analysis of the interviews has also revealed that only three companies (A,C and D) have established portfolio management for digitalisation projects. The business case evaluation serves as company D's tool to prioritise projects whereas companies A and C select on the basis of the subjective criteria of classical portfolio management. Company B further stated that there are so-called "must-have" projects which have to be implemented to withstand high competitive pressure. Only three of eight participants use a modification of the balanced score card which is meant to operationalise the digitalisation strategy and measure KPIs. Parallely, it is a good basis for a comprehensive reporting dashboard for management since possible connections can be visualised (company G). Company B is the only enterprise that has developed a Balanced Scorecard that is detached from the overall strategy and organised in four categories which involve KPIs representing digital transformation. Qualitative and quantitative are equally included although company B argues that the non-financial KPIs are more interesting since no money is earned yet with digital transformation. For each KPI the set targets are reviewed regularly. The companies that do not generate a BSC for digital transformation utilise specific KPIs nevertheless. Companies A and C only take into account financial KPIs and view a greater change in traditional management KPIs as unnecessary. As opposed to this approach, companies D, E and F are convinced that new KPIs, including financial and non-financial ones, have to be defined. Moreover, digital processes have to be treated differently and measured by new KPIs. This in turn is highly depend on the observed process (companies E and F). Another instrument used by half of the companies is the business case that takes a detailed look at the financial perspective for which company C uses similar evaluation criteria. The financial evaluation of the benefit is, however, difficult as it can often be found in qualitative aspects. To solve this problem company C tries to derive the financial advantageousness of the project to approach the standardised business case. As a replacement for the traditional business case company D uses a derivation for evaluation in three levels. The first level comprises a consideration of the strategic impact followed by an evaluation of the impact on the processes. Based on the costs a financial value is calculated. Combined a relatively extensive picture about the projects can be created in order to specify priorities. However, for a holistic evaluation important experience parameters are missing, which is why this method has to be continuously optimised.

For digital business models companies F and G agree that the point of view changes towards a customer-oriented management due to the increasing relevance of a holistic consideration of the customer (companies F and G). This change is also noticed by companies C, D, F and H especially

concerning management KPIs. While classical business models are measured by revenue. Revenue growth and EBIT Relative KPIs like revenue growth are preferred instead of absolute ones such as EBIT.relative amounts, like the development of digital revenue in percent, instead of absolute ones that are relevant to digital business models. With respect to cost accounting company F differentiates once again between digital and physical products. The latter's production costs consist of a fixed and a variable component which can be determined exactly. Including a set margin, the price can be calculated. In comparison to this, the cost structure of digital products is only composed of fixed cost from a simplified point of view. Thus, the revenue is dependent on which services the customer demands and how large the service offer is. According to company H digital business models can be managed along the life cycle by means of various aspects. At the beginning the focus is on the achievement of product/ service maturity whereby financial KPIs play a secondary role due to non-existing revenue and only cost and budget are used for management. Additionally, non-financial KPIs are incorporated. In the next step a certain market acceptance and market penetration is to be obtained which is managed by KPIs such as the market share combined with revenue growth. As soon as a stable position is reached a profit-oriented management with emphasis on profitability and the contribution margin has to be established. With the attainment of the highest maturity a value-oriented management is appropriate. Thus, the management model should be adjusted continuously depending on the stage of maturity of the business model.

Management challenges of digital transformation

All participating companies identify a variety of current and future challenges in the management of the internal digital transformation and digital business models. For more than a third it is yet unclear where exactly they want digital transformation to lead them. This notion is caused on the one hand by a missing target definition in form of a strategy, the uncertainty of what is technically feasible and how this impacts internal processes. On the other hand, the multitude of projects that is currently initiated cannot be managed with the existing resources (companies A and G). Thus, the biggest challenge for companies is to establish a structured digitalisation strategy containing a clear aim and set projects and to communicate it as quickly as possible. Alongside the uncertainty, company D also factored in the lack of experience since no one can estimate how long it takes until the current solutions are substituted by something completely new. As a result, the risk of the projects increases significantly. Companies have to try to assess the current situation objectively and to not be enticed by optimistic trends. Moreover, companies B and D see problems concerning the quantitative evaluation of the project benefit of digital products which is often multi-layered and not clearly evaluable. Consequently, companies which are used to assessments based on financial factors have to take into account qualitative aspects. Including the human factor, half of the interviewees (companies A, E, G

and H) stated that the qualification and the management of the employees and their mindset presents a further challenge of digital transformation. Without specialised and motivated staff, it is impossible to realise a digitalisation strategy successfully. Company H also highlighted that the conflict between the different types of management for digital business models. Usually, a group is measured by standardised instruments in a high frequency. There is generally a different structure and resource equipment is considerably higher. In contrast, priority of digital companies which are smaller in most cases, is the development of a business model. Therefore, only few and more qualitative KPIs are important. This creates a tension between the two points of view, which can be optimally solved via open communication by the management.

In the future all companies plan to pursue the commenced digital transformation, adopt supplementary projects and increase the transparency of the adjustments. Consequently, investment in the status quo should be limited. Instead company D states that more flexible solutions and technologies should be selected which can be adjusted with relatively small effort. Additionally, companies D, E and H intend to introduce a holistic management to increase stakeholder transparency. Within the management reporting will be conducted top-down as well as bottom-up by means of the already established KPIs. This adjustment is not completed but has to be understood as a successive process whereby KPIs will be adjusted continuously according to the situation in the future (companies A, B, C and H). The participants further assign great improvement potential to the creation of a business case for digital projects. On the one hand, the competency of the employees preparing the business case has to be strengthened which increases quality. On the other hand, company B suggests to establish a comprehensible process which ensures a standardised and comparable prioritisation of projects. Company H, however, believes that the business case's relevancy should be reduced to maintain flexibility for explorative thinking. Concerning the forms of digital transformation, company A expects the share of new business models to rise in comparison to traditional business models.

In summary, the interviews have yielded that a complete transfer of the conceptual approaches into practice has not yet occurred. Although many companies have initiated the topic of digital transformation for their future strategy an operative application in form of a holistic management is not the case. The reason is that the majority of the companies still classify the given management instruments as appropriate and thus, do not see a necessity for a change. In fact, they rather suggest an adjustment of management KPIs to the given situation. As a consequence, there are no plans to further develop these instruments in the near future. Additionally, all companies see fundamental challenges in the holistic management of digital transformation and the corresponding methods, which is why they have not been put into practise to date.

Recommendations for companies

Based on the aforementioned findings recommendations for companies can be derived. It has to be noted, however, that these recommendations are meant to serve as a suggestion for companies to increasingly deal with a holistic management of digital transformation instead of being best practice approaches.

All companies stated that digital transformation is a relevant topic, especially in the future, as it is already omnipresent in daily life today. Therefore, it is imperative for companies to not miss out on digital transformation in their own industry as otherwise the risk to drop out of the market arises. Companies should act instead of react and should address the future challenges caused by digital transformation proactively. This can be encouraged by implementing a digitalisation strategy which can lead to an overarching goal definition and identification of many relevant projects. Additionally, it reduces uncertainties concerning technical realisation and implementation via employees. Considering the human factor qualifications regarding data and new technologies should be promoted more since specialised and motivated staff is required to realise digital transformation.

Regarding the management of digital transformation only few companies have already established a central department and others follow an explorative approach to deal with the topic. It is recommended that a combination of both is used. A central management committee can analyse and pursue the organisational strategy superficially. Simultaneously, a certain degree of flexibility for function specific solutions can be ensured. In theory as well as in practice a modification of the BSC is seen as an overarching management instrument. In consideration of new relevant digital dimensions companies can operationalise their digitalisation strategy by means of KPIs. Thus, a great need of action can be identified for those companies that have not yet included important KPIs concerning digital transformation. In the optimal case, qualitative and quantitative KPIs should be adopted to cover as many aspects of digital transformation as possible. This enables an ongoing review of the actual in comparison to the planned situation.

The management of the internal digital transformation shows differences in project management between theory and practice. Theory recommends a qualitative project evaluation of opportunities taking into account all significant risks combined with a quantitative evaluation of risks. In practice project management relies on mainly on quantitative measures such as budget and costs. Therefore, this paper recommends to add a qualitative evaluation due to the agile character of digital projects next to the existing quantitative methods. The participating companies mostly prioritise their projects using a qualitative assessment of the strategic relevancy in conjunction with the coverage of costs and benefits. The weakness of this approach is its subjectivity and the insufficient comparability of projects. To avoid this the traditional portfolio analysis should be extended and next to analysing the

benefit the project's suggestibility and degree of influence should be considered. Thus, the focus is not exclusively on qualitative or quantitative factors. Similarly, when creating a business case financial and non-financial aspects should be considered. Generally, the use of a business case is also suggested due to its objectivity and the comparability of projects.

Management based on KPIs by using the BSC is applied for digital business models as well, which involves an adjustment of KPIs to the new business model. As a consequence, a conflict can arise because of the diverging management orientation. While the traditional approach is measured by standardised instruments the focus of digital business models is primarily on the development of products. For bigger enterprises creating a completely new business model does not make much sense. Instead, it is recommended to integrate all relevant and new aspects concerning digital transformation in the existing management model which can be in the form of a new dimension or simple KPIs to measure the progress of the digitalisation strategy.

5 CONCLUSION

The focus of this research project was on the examination of possible methods for the management of digital transformation which are used in theory and practice. The practical analysis shows that digital transformation already plays an important role in many companies since it enables them to secure entrepreneurial continuance and to gain a competitive advantage. Simultaneously, it has a significant impact on internal business processes, products and business models. Thus, management has to react to these changes as the inclusion of the dimensions of digital transformation is indispensable nowadays. This emphasises and illustrates the relevance and actuality of the topic.

Literature generally distinguishes between the internal digital transformation and digital business models. Concerning an overarching management, the main focus is on the implementation of new digitally relevant KPIs by means of the BSC which allows an operationalisation of the digitalisation strategy. By combining quantitative and qualitative KPIs, extensive information on the company's business situation can be gained. Moreover, for the internal digital transformation traditional instruments such as the project portfolio analysis and project management are used. Both methods consider the specific characteristics of digital projects, which are highly uncertain and volatile, and should be managed in an agile way to obtain the best result possible. It should, however, be taken into account that the individual selection of criteria for project evaluation in the project portfolio analysis can be highly subjective. With an independent expert evaluation in project management that is not the case. Regarding the management of digital business models, theory offers only a holistic model alongside the lifecycle apart from the BSC and digital KPIs. The lifecycle comprises traditional instruments such as the business case, target cost management and project break-even analysis. The

difference is in the cost accounting which is less detailed to maintain a certain flexibility and reactivity on environmental changes. As stated, before the topic of the management of digital transformation is a very young research topic. Therefore, only few methods and no established standards exist in theory. As a consequence, the presented methods can be seen as a first step to manage digital transformation. They should, however, be further developed and extended in the future.

The findings from the eight expert interviews with digitally oriented companies show that the methods to manage digital transformation described in theory are mostly implemented. Nevertheless, the topic itself is only present in form of single pilot projects. A holistic, strategic target tracking only exists occasionally. Yet, a modified BSC, a portfolio analysis, a project management approach, a business case and new KPIs can be observed in practice. Due to their practicability, they are, however, implemented in a very simplified design. A further challenge is the company's attitude towards digital management models. A majority of the companies interviewed views the difference in management less in the applied instruments themselves but rather in content and handling. As a result, only few plan adjusting or extending their management instruments in the future instead modifying solely the content. Thus, it can be summarised that it is not necessarily required to use of specific management instrument. It is more important that companies deal with the topic on an overarching level and develop a digitalisation strategy which can be used for successive process optimisation, the integration of new technologies and the textual adjustment of existing management instruments.

To gain further knowledge on the topic, it would be useful to promote a practical integration of a digitalisation strategy based on the present findings to ensure a holistic digital transformation management in companies. At the same time, competitive pressure regarding digitalisation will rise. Furthermore, customers will increasingly demand digital solutions and products whereby companies are forced to deal with the topic sooner or later. Visionary action at an early stage can thus lead to a significant advantage. Additionally, it should be observed to what extent management instruments have to be adjusted concerning the characteristics of digital products or if there is only a difference in content as described in practice. As solely a limited number of companies could be interviewed and analysed in the context of this research, the sample is limited in its significance as well. For this reason, in-depth studies based on the defined research gap should be conducted in the future which could increase the attention on the relevance of a holistic management of digital transformation in companies.

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CAN DIGITALIZATION BOOST COMPANY'S PERFORMANCES? AN OVERVIEW ON ITALIAN LISTED COMPANIES

Broccardo, Laura¹; Truant, Elisa¹; Leo-Paul Dana²

¹Department of Management, University of Turin, Assistant Professor, Torino, Italy

²Montpellier Business School

ABSTRACT

Information technology is becoming embedded in products and services and IT is increasing its role in support many business areas and processes of companies. Over the years, literature on digitalization is increased, however there is a lack of empirical studies that analyse the state of the art of digitalization and its implementation within companies. Consequently, the research aims to open the black box on digitalization, observing its diffusion, the advantages and difficulties highlighted by the sample in the transition towards digitalization and the impacts on performances in Italian listed companies belonging to different industries, expecting a good level of digitalization.

The contribution and the originality of the research is due to the fact that there is still scarce empirical evidence on effects of digitalization on corporate performance.

Findings clearly highlight a still embryonic adoption of ICT system to support daily operation, however benefits and positive impacts on company's performance of the adopters have been observed.

Keywords: digitalization, company's performances, listed companies, benefits, obstacles

INTRODUCTION

This study aims to shed light on digitalization in Italian listed companies, also highlighting the main benefits perceived, obstacles and effects on performances with focus on the state-of-the-art of digitalization in Italian listed companies, where a good level is expected. Then, the perceived benefits and impact on performances are analysed. Indeed, despite the large number of papers dealing with digitalization on business activities of the companies, it can be said that there is still scarce empirical evidence on effects of digitalization on corporate performance.

Digitalization has been described as "the fourth industrial revolution due to its immense potential impact on consumers, societies, and businesses" (Hossnofsky and Junge, 2019). Referring to businesses organizations, digitalization is defined "as the use of digital technologies to change a business models and provide new revenue and value producing opportunities" (Gartner, 2016), transforming the way business is directed (Porter and Heppelmann, 2015; Cenamor *et al.*, 2017). To have a clear

understanding of the meaning of digitalization, two-dimensional constructs are taken into consideration: the first one involves the provision of IT-enabled (i.e. digital-based) services using digital components incorporated into physical goods (Schroeder and Kotlarsky, 2015), while the second dimension refers to the digital capabilities incorporated into the operational aspects of industrial processes. These key digital capabilities include data-driven networks, cloud technologies, machine-to-machine (M2M) tools, analytics, touch/interface, big data, 3D printing, automated robots, smartphone applications, additional production, plant Wi-Fi, 3D visualization/simulation, social technologies, increased reality, radio-frequency identification (RFID), blockchain, facial identification (Conner *et al.*, 2014; Demirkan *et al.*, 2015). These skills are increasingly critical for company's success, enabling product and consumer insight along with value-added offers (Lenka *et al.*, 2017).

Several advantages coming from digitalisation have been reported: automation and process optimisation can increase efficiency and profitability through cost savings, accelerating production and reducing errors (Grubic and Jennions, 2018; Hasselblatt *et al.*, 2018). Companies that invest in digitalization are potentially able to outperform their peers in sales growth and business efficiency (Stanley and Gyimesy, 2015). Many businesses are motivated to implement innovative business models based on digital technology, in order to increase opportunities and benefits (Baines *et al.*, 2017).

These business models build and capture value during the different stage of the product life-cycle, as noticed by Visnjic *et al.* (2018).

Therefore, companies need to innovate and orientate their business model on digital technologies such as artificial intelligence, digital networks, and big data analytics, with the aim of leverage advantages.

Nowadays, in light of the increasing transition to a more digital economy, most chief executive officers (CEO) are trying to understand how the digital revolution impacts the business (Björkdahl, 2020). Business leaders must concentrate on developing new practices, capabilities and strategies digital oriented, to create and capture value.

Surprisingly, most businesses still did not realize the effect of digitalization on performances and consequently they are running to invest in ICT but not rationally. Indeed, it is therefore not yet clear if such investments are a consequence of a thoughtful strategy or represent just a trend. Certainly, digitalization is also one of the greatest trends in modern manufacturing that also enhance to improve competitiveness (Schiavone and Sprenger, 2017; Vendrell-Herrero, 2017) also providing new ways to fulfil the customer's expectation; indeed, customers demand new customized solutions and thus switch businesses from products to digital integrated solutions (Davies, 2004). Digitalization includes the implementation and use of digital technology in business processes and it can be considered as data generation (Hsu, 2007), analysis or use to improve company performance (Björkdahl, 2020). Starting from this evidence, the paper has focused on the state-of-the-art of digitalization in Italian listed

companies, where a good level is expected. Then, the perceived benefits and impact on performances are analysed. Indeed, despite the large number of papers dealing with digitalization on business activities of the companies, it can be said that there is still scarce empirical evidence on effects of digitalization on corporate performance.

The paper is structured as follows: the next section focuses on the literature review and the emerging hypotheses, then the third section describes methodology and sample. Furthermore, results are provided and finally discussion, contribution and future remarks are presented.

LITERATURE AND HYPOTHESES

Digitalization in listed companies

Digital technologies allow businesses to alter their value creation activities "by enhancing user experience" so to optimize process coordination and/or generate additional consumer value (Verhoef et al., 2019). For example: businesses apply digital technology to improve communication (Ramaswamy and Ozcan, 2016), distribution (Fuentelsaz *et al.*, 2009; Leviäkangas, 2016) and customer relationship management (Pagani and Pardo, 2017). Even so, digitalisation not only increases cost-efficiency but also makes it possible to enhance processes that generate value for clients.

Listed companies are expected to play a relevant role in digitalization, and empirical evidences indicate that stock market participants integrate digital knowledge into their business processes (Ricci *et al.*, 2020). Furthermore, a research revealed a significant relationship between digitalization and stock value (Ricci *et al.*, 2020), which implies the inclusion of digitalization-related information in investors' decision-making processes.

Another study explores the importance of digitalization-related disclosure (Hossnofsky and Junge, 2019), highlighting how listed companies provide details about their digital efforts and the influence on investors. Consequently, it emerged that share prices also depend on the extent of the information relating to digitalization. It implies that stock valuation incorporates the digitalization efforts, as previous research also suggests (Benner and Ranganathan, 2017).

In line with digitalization-related disclosure, other researcher suggests that in order to implement marketing analytics, there must be clarity on what direct digital marketing (DDG) is expected to achieve. direct digital marketing is a type of marketing that uses just digital tools.(Grandhi et al., 2020) However, to the best knowledge of the authors, there are still scant researches on digitalization in listed companies. Consequently, the paper tries to fill this gap, and based on the previous literature evidence the following hypothesis is formulated:

H_p 1: Listed companies are expected to have high degree of digitalization initiatives also due to the stock market pressures.

Digitalization and company's performance

The literature recognizes that digital improvements in product offerings and operational processes impact on company performance in different ways (Brynjolfsson and Hitt, 2000, 2003; Kryvinska *et al.*, 2014). Belvedere *et al.* suggested a conceptual model to correlate value creation to ICTs through variables such as advance in product supply (Belvedere *et al.*, 2013), process standardization and response capacity. The authors have shown that ICTs can have a huge effect on value generation. The positive relationship between ICT and performance has also been suggested in other researches such those of Koc and Bozdag (2009), Moshiri and Simpson (2011), Cardona *et al.* (2013), and Enríquez *et al.* (2015). The relation between the use of the ICTs and performance improvements is evident in different business sectors (Gali *et al.*, 2004).

ICT investments can also facilitate cost-reduction and revenue growth (Mithas *et al.*, 2012) and the main benefits are related to customers, business model, business processes, infrastructure, as described by Neumeier *et al.* (2017). Arfaoui *et al.* (2019) recognized these facilitating conditions for using ICT as one of the important variables influencing social performance in Tunisian banks.

Measures and appropriate processes to estimate the value of digitalisation are required, and the reliability and customer experience are considered as central value drivers in the digitalization process. Some researchers have proposed methods for measuring the contribution of an information system in the performance of organizations, but they all emphasize the fact that a lot of effort is needed to eliminate the existing constraints in this process. (Aggelidis *et al.*, 2008)

Additionally, the impact of digitalization and the positive effect on corporate performance were studied by Martín-Peña *et al.* (2019) and current literature also points out that industrial companies, implementing digitalization capabilities and technology to increase service delivery and customer integration, could raise the value of their product-service system offering and enhance long-term profitability (Kinderman *et al.*, 2020; Lenka *et al.*, 2017; Adrodegari *et al.*, 2017). Birchall *et al.* (2008) reported a positive impact on operational performance when organizations use ICT effectively to support decision making, networking, and flexibility in their organization.

According to DeLone and McLean (2003), system usage is a necessary factor for IT to affect organizational performance. System usage is another way of measuring the success of an information system, reflecting how users are satisfied with their information systems' effectiveness (Aggelidis *et al.*, 2008). another researcher in line with IT effect on the social performance of company reported that when project management team members are able to coordinate with others by using specific IT applications for project management and the steps are followed by applications; employees perceive that working with ICTs is clear and easy to understand. It is convenient for them to become proficient

in the use of ICTs. It provides flexibility in their work scheduling, so it positively influences the company's social performance.(Arfaoui *et al.*, 2019)

Finally, other researches have highlighted that the formulation of a digital strategy makes companies 26% more efficient and increase of 9% than their competitors (Westerman *et al.*, 2014). Some researchers revealed that the effects of ICT adoption on SME performance were mainly related to cost-saving, which caused by ICT adoption rather than growing market share and volume of sales. (Locke, 2004; Birchall *et al.*, 2008). Furthermore, managers believe that the impact of ICT on both their personal job and the organisation's overall performance will influence their attitude and behaviour, and consequently on their employees.(Birchall *et al.*, 2008). Another researcher conclude that in the area of information technology (IT) explosion, performance only show how participants recognize and then using these technologies.(Arfaoui *et al.*, 2019).

The ICT and digital capacities of a business are therefore correlated with an increase in financial performance (Cardona *et al.*, 2013; Westerman *et al.*, 2014).

Following this evidence, the following hypothesis is proposed:
H_p 2: Digitalization is positively associated with firm performance.

METHODOLOGY AND SAMPLE

The sample consists of listed companies in Italian Stock Exchange.

An initial list of companies was obtained from the Aida database. The initial sample composed by all companies listed on Italian Stock Exchange was reduced to 353 firms as banks were not included.

A questionnaire was sent through the Investor Relation contact and three telephone follow up were made. the questionnaire was created in October 2019, and the data collection was completed in September 2020. The compilation period was approximately 8 months, with several telephone calls made to solicit replies.

The questionnaire contained three main sections: i) general data about the company; ii) economic and financial data; iii) digitalisation, adopted tools and effects on different organizational units; iv) digitalization advantages, obstacles and impact on performances.

Furthermore, the questionnaire included closed-ended and open-ended questions with space to write additional comments. To reduce the rationalizing risk, the questions have been divided and dependent and independent variables have been positioned in different parts of the questionnaire (Podsakoff *et al.*, 2003).

Data, both quantitative and qualitative were collected through Google Survey and analysed also with the support of statistical tools (Dana and Dumez, 2015).

Descriptive statistics, correlation matrix and PLS were used to answer to the hypotheses formulated.

The questionnaire method was chosen because it allows the collection of a significant amount of data, allowing a statistical analysis to formulate generalizations.

After having sent the questionnaire to those firms, 127 companies replied to it, but the sample was later reduced to 116, as ten questionnaires were only partially completed and, consequently, were not useful.

The response rate amounts to 32%. The companies' size of the sample is described in the next table.

Company's size	Percentage
Small and Medium Enterprises (SMEs)	43.96%
Large companies	56.04%

Table 1. Company's size by Percentage

The previous table shows that the sample is equally distributed between large companies and SMEs, listed on MIB, STAR, Small and Mid Cap, AIM.

Additionally, around the 44% of the sample has a number of employees lower than 250, the 22% has employees between 250 and 1,000, while the 34% shows more than 1,000 employees.

The majority of companies included within the sample belongs to industrial sector.

About the localization of the sample, the following table shows the percentages within different Italian areas.

Geographical Location	Percentage
North East	43.96%
North West	18.96%
Center	25.00%
South	12.08%

Table 2. Italy, Geographical Location

The next section provides the main results achieved and the statistical analyses.

ANALYSIS AND RESULTS

Data analysis

In order to test the hypotheses, firstly we investigated if companies are digital-oriented. The next table provides the actual situation, based on responses collected.

Implementation of digital tools	Percentage
Yes	12.93%
No	34.48%
Under Implementation	52.59%

Table 3. Implementation of digital tools (e.g. Business Intelligence, analytics, big data, IoT, etc.)

As it emerged, in the sample analysed the degree of digitalization is not particularly high, as also confirmed by results of the next table. Table 4 describes the different stages, starting from an “indifference” level till a full implementation.

Digitalization degree	Percentage
Stage 1- Unknown phase (Not aware of digitalization tools and potential benefits)	12.93%
Stage 2- The company is still evaluating the costs/benefits of a possible implementation	21.55%
Stage 3- Early adoption phase (The company is aware of the potential of digitalization but have not completely implemented it)	43.97%
Stage 4 -The intermediate phase between Adoption and Routine phase	9.48%
Stage 5- Routine phase (The company has a high level of digitalization and fully integrates its business processes)	12.07%

Table 4. Digitalization degree

Basing on the results of the previous table, we considered a company with a digital orientation if at least has begun to adopt digital tool, therefore from stage 3 to stage 5.

Focusing on big data, it emerged that the main techniques used are mainly statistical, data mining and visual analysis, as shown in table 5.

Big data analysis techniques	Percentage
Statistical analysis	25.00%
Data Mining	25.00%
Visual analysis	25.00%
Machine Learning	11.84%
Algorithmic analysis	13.16%

Table 5. Techniques used to manage big data

Also, it was investigated the improvement perceived from the investments in digitalization, as highlighted in next table.

Benefits	Percentage
Yes	62.99%
No	37.01%

Table 6. Benefits perceived

Specifically, the main benefits are: i) increase of competitive advantage; ii) better quality of goods and services; iii) improvement of customer experience. Companies that declared no benefits also experienced privacy and control issues and difficulties in managing a huge amount of data. Benefits coming from the digitalization have been analysed also at the organizational level, and specifically focusing on different business areas, as shown in the table 7.

Improvement in company's business areas	Percentage
Strategic planning and control	22.37%
Marketing	23.68%
Production	14.47%
Logistics	15.79%
Procurement	11.96%
Warehousing	9.21%

Table 7. Improvement in company's business areas thanks to digitalization

Basing on the evidence of the previous table it emerged that marketing as well as the strategic planning and control are the main areas that benefit from investment in digitalization.

Additionally, we investigated the main barriers to digitalization perceived within the whole sample.

Barriers to digitalization	Percentage
Insufficient resources	23.22%
Lack of suitable skills to manage the data	12.93%
Lack of techniques and procedures	23.33%
Time consuming	12.93%
Data quality (Poor data / information)	10.34%
Limiting business model	6.90%
Lack of integration	3.45%
Privacy and security concerns	3.45%
Low internal acceptance	3.45%

Table 8. Barriers to digitalization

From the previous table it emerged that the main barriers are represented by the lack of internal techniques and procedures to support the digitalization implementation and management, as well as the lack of financial resources to support the investment.

Finally, a correlation among companies' size (see table 1), degree of digitalization (see table 4), company's profitability performances ROI and ROE (extracted from AIDA database, basing on the average value of the last three years) and benefits perceived (see table 6) is conducted and presented in table 9.

Variables	Company size	Digitalization	Company's financial performances	Benefit perceived
Company size	1			
Digitalization	0.572**	1		
Company's performances	0.300*	0.514**	1	
Benefit perceived	0.203**	0.423**	0.818**	1

** P<0.01, *P<0.05

Table 9. Correlation matrix

The table above shows the correlation coefficients for examining the relationship between the model variables in pairs. Some coefficients are significant at 99% confidence level ($P < 0.01$). (Marked with **). Some coefficients are significant at 95% confidence level ($P < 0.05$). (Marked with *). The larger the correlation coefficient, the stronger is the relationship between the two variables.

Our correlation analysis reveals significant correlations between variables and specifically: i) firm size and use of big data, ii) use of big data and higher performances, iii) benefits perceived and performances.

Measurement Model

As suggested by Hair et al. (2010) we used the factor loadings, composite reliability and average variance extracted to assess convergence validity. The recommended values for loadings are set at > 0.5 , the average variance extracted (AVE) should be > 0.5 and the composite reliability (CR) should be > 0.7

Construct	CA	Rhona	CR	AVE
Company's size	0.677	0.778	0.705	0.564
Digitalization	0.669	0.852	0.798	0.679
Company's performance	0.685	0.861	0.810	0.574
Benefit perceived	0.754	0.755	0.891	0.803

Note: AVE = Average Variance Extracted, CR = Composite Reliability,

CA=Cronbach Alpha.

Table 10. Construct Reliability and Validity

Also, a multilevel confirmatory factor analysis model and structural equations, based on standardized coefficient, was prepared and the results are presented in the above figure. From this analysis

company's size plays an independent role, while digitalization plays a dependent role. Digitalization, also, is strongly connected with company's performances as well as benefits.

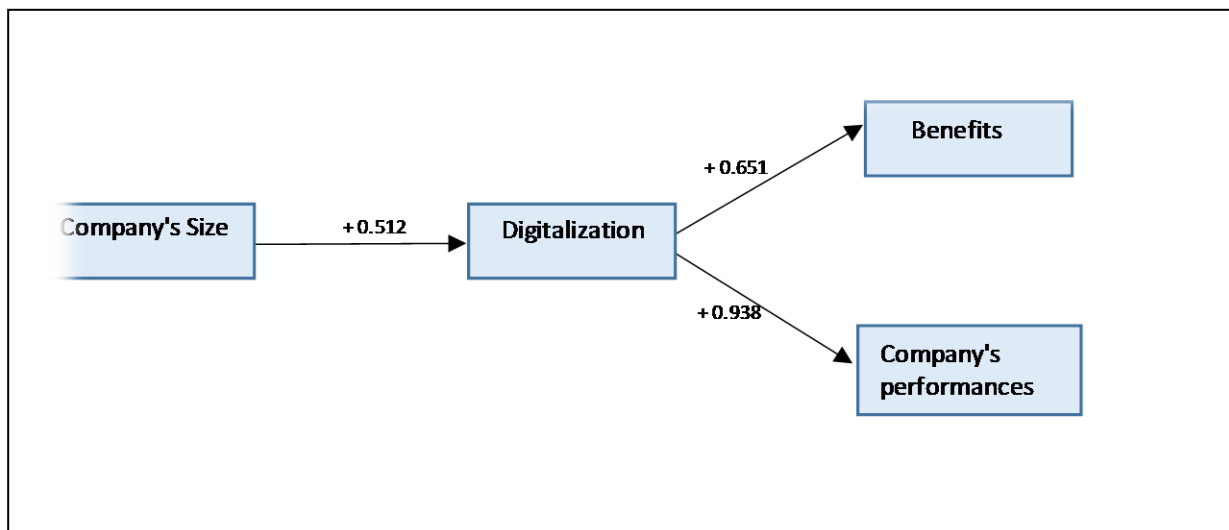


Figure 1. Results of structural equation modelling analysis

Basing on the results achieved, in the next section, the discussion is provided.

DISCUSSION

The literature analysis highlights that more evidences are needed referring to the digitalization in listed companies, this is the reason that led this investigation.

In particular, it clearly emerged the relevance of digitalization in listed companies (Hossnofsky and Junge, 2019), that also affect company's value generation (Benner and Ranganathan, 2017).

This is the reason of our first hypothesis, *listed companies are expected to have high degree of digitalization initiatives also due to the stock market pressures, that unfortunately is not confirmed.*

Indeed, as data show, only 13% has fully implemented digital tools like business intelligence, analytics, IoT and big data, while in the 53% of the sample are under implementation and, surprisingly, in the around 34% of companies digital tools and advanced digital tools are lacking.

Remarkably, when digital tools are under implementation, the majority of companies can be considered early adopters. In these cases, the companies are aware about the benefits of digitalization, but the implementation process is still in an embryonic stage.

Unfortunately, only the 12% of the sample has a good degree of digitalization with a full integration of specific tools.

This evidence highlights how these companies have to invest more in digitalization, also rushing the initial steps in order to conclude digitalization projects to achieve value, as also underlined in the literature. The benefits are in terms of product offer and operating processes (Brynjolfsson and Hitt, 2000, 2003; Kryvinska *et al.*, 2014; Belvedere *et al.*, 2013). A positive relationship between digitalization

and performance is also highlighted in the literature (Enríquez *et al.*, 2015; Gali *et al.*, 2004) and confirmed by our research. Indeed, analysing the data, the second hypothesis *digitalization is positively associated with firm performance* is validated.

When applied, the main digitalization techniques spread in the sample are statistical analysis, data mining and visual analysis and the 63% of companies declared to perceived benefits from this investment.

The main business areas that received benefits or perceived improvements are marketing (24%), and strategic planning and control (22%). On the contrary, minor improvements are perceived in production and logistics. In this context, future researches could try to understand the reasons of higher and lower benefits perceived.

The correlation matrix and the model proposed highlight a strong correlation between the degree of digitalization and profitability performances. Deeping the correlation it is possible to notice a strong link between firm size and the adoption of digital tools: specifically, large companies are more inclined in investing in digitalization maybe due to the greater financial and human resources available in such kind of companies.

Benefits can be considered one of the forerunners for the value generation and a strong correlation is evident between benefits and performances.

CONCLUSIONS, CONTRIBUTIONS AND REMARKS

This research makes important contribution in terms of digital orientation and impacts on performance, as also highlighted in the future agenda of Kindermann *et al.* (2020).

Specifically, the research shows a relevant *theoretical* contribution in filling the gap highlighted in literature about digital implementation in listed companies. Additionally, it provides clear evidence about the role of digitalization in improving company's performances, shedding the light on a positive correlation between digitalization investments and financial performances.

From the *practical* point of view, we depicted the Italian situation in listed companies, showing a scarce implementation of different digital instruments. However, the positive results achieved are surely an engine to push management decision towards investment in digitalization.

Additionally, the research depicted the barriers to digitalization and such evidence can be helpful for managers as it enhances to better understand the criticalities, but at the same time the actions that can be undertaken in order to solves these issues.

Future developments can be oriented to deepen why the perceived benefits are low in production, logistics procurement and warehousing. Additionally, it could be helpful to investigate the correlation between digitalization and sustainability performances.

Concluding, it is important to outline that the use of new digital technologies are prerequisites for digital transformation, but are not sufficient for success. Successful efforts also require formalized processes able to guarantee the long-medium and short term goals implementation, new forms of organizing and new work practices. In other words, digitalization includes more than digital technologies and data requiring a business model restructuring. If companies do not comprehensively take control and complete the digitalization projects, the efforts in terms of developing and transforming their strategies, processes and practices are useless and they risk losing profit-generating opportunities.

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LINKING FINANCIAL AND NON-FINANCIAL INFORMATION TO DECISION-MAKING: A RESEARCH AGENDA

Cepêda, Catarina¹; Monteiro, Albertina Paula²; Silva, Amélia²; Rua, Orlando Lima²

¹University of Minho, Braga, Portugal

²Porto Accounting and Business School, Polytechnic of Porto, CEOS.PP, Portugal

ABSTRACT

The importance of information produced by accountants, both financial information and non-financial information, is useful for the decision-making of all its users. Given its importance for company's survival and sustainable growth, this study aims to identify and analyse studies linking financial and non-financial information to decision-making. A quantitative bibliometric analysis was conducted using VOSviewer software. A total of 689 articles were selected from Web of Science database, between 1968 and 2021. First publication was in 1968 and the year with more publications was 2020. USA is the country with more publications, followed by Brazil, England, and Australia. Maria Beuren, Isabel Brusca, Sandra Cohen and Umbelina Teixeira are the authors with more publications. Most productive Journal and institution are Sustainability and Universidade São Paulo. Considering the number of citations, most influential author, journal, organization, and country were Adams, Accounting Organizations and Society, Monash University and USA, respectively. In addition, we found that most influential research are in subtopics (1) usefulness of financial and non-financial information in decision-making, (2) factors that influence successful decision-making, (3) relevance of integrated reporting, and (4) evolution of digital accounting. Results also indicate that research trend is towards accounting digitalization importance, as well as financial and non-financial information (usefulness/quality) impact related to corporate social responsibility and risk in decision-making and consequent business success.

Keywords: Non-Financial Information; Financial Information; Decision-making; bibliometric analysis

INTRODUCTION

Given the importance that financial and non-financial information has for decision-making to the company's future, this paper aims to provide the state of art in the field of financial and non-financial usefulness to decision-making process, in order to systematize existing studies and identify trends in academic research on this topic.

When we come to think about what decision-making involves, we come across a whirlwind of factors influencing decision-making process, but also what a decision is. Concept of decision is

primary unit of analysis (Miller and Wilson, 2006). According to Fishburn (1970, p. 1) *“decision making serves as the foundation on which utility theory rests”*. Utility theory is related to people's preference and the assumption that this preference will numerically bring usefulness to the person (Fishburn, 1968).

Decisions concern allocation and exercise of power in organizations (Miller and Wilson, 2006). According to Athanasou and Perera (2019), decision-making involves defining a set of objectives to be achieved, as well as identifying possible alternatives, so that you can later define the attributes/factors that you should take into account when choosing the best option/alternative.

A business decision can be influenced by its decision maker and company characteristics (Çaliyurt, 2011). Literature suggests existence of antecedent variables, such as manager individual characteristics (e.g., age, gender, academic qualifications, and experience) and company characteristics (e.g., age, size, industry, ownership) where manager performs functions (Amoako, 2013; Florin, 2014; Tang and Liu, 2016; Santos et al., 2016). In fact, there are many studies that seek to identify factors that contribute to successful decision-making (e.g., Forin, 2014, Monteiro et al., 2021c; Monteiro et al., 2021d).

Decision-making involves the use of various types of information, highlighting financial and non-financial information generated from an accounting information system. According to Soudani (2012, p.50), *“accounting information systems are considered as important organizational mechanisms that are critical for effectiveness of decision management and control in organizations”*. According to Haleem e Kevin (2018) accounting system provides useful information to stakeholders for decision-making, which can determine organization success. Literature suggests that financial and non-financial information use is a sine qua non condition for the success of companies. In this context, Akhtar and Liu (2018, p. 390) argue that accounting information *“should be used by the external and internal evaluators of the company, to guide better decisions”*. Costa et al. (2021) argue that financial indicators assist managers in assessment of startups' reality and contribute to their perceived performance. In fact, management is engaged with different types of activities and decisions which require quality and reliable accounting information (Soudani, 2012). Bar-Hod et al. (2021) verify that managers view quantity and quality as complementary features of corporate disclosures, but, however, large amounts of information overwhelm investors, thus obscuring high-quality disclosures. Hope et al. (2017), Cepêda and Monteiro (2020) and Monteiro et al. (2021c) conclude that usefulness/quality of financial information and business performance are statistically correlated variables. Furthermore, successful decision-making and consequent business performance are a consequence of non-financial information quality (Monteiro et al., 2021d), accounting information system and internal control system (Monteiro et al., 2021c; Soudani, 2012). In fact, the literature highlights the important role of accounting information on decision-making. In this context, this paper aims to contribute to a better understanding of investigation

carried out on relevance of financial and non-financial information for decision-making. To achieve this overall objective, a bibliometric analysis is carried out on the papers specifically focused in the study area in sources indexed on the Web of Science (WoS) database by assessing the scientific production by authors, journals, and topics, as well as their temporal evolution. Thus, this study has three specific objectives:

1. Analyze the scientific production linking financial and non-financial information to decision-making by quantifying the published articles per year, journal, author, country and keywords.
2. Analyze the influence of published articles on financial and non-financial information and decision-making by identifying the most cited articles, journal, authors, organizations, country/regions, as well as subtopics of most influential research.
3. Identify trends in this research area.

Bibliometric analyses have become popular in recent years to explore, organize, and evaluate scientific production that has been developed on a specific subject of study (e.g., Monteiro et al., 2021a; Baker et al., 2020; Rajan et al., 2020). This type of analysis provides a better understanding of a particular research topic identifying issues that have received greatest research attention and assessing published papers characteristics and impact (Sáez-Martín et al., 2017), which allows researchers to identify trends and gaps in academic research. Thus, this study's findings depict the status of research on financial and non-financial information to decision-making and provide a reference frame that could guide researchers regarding the direction of future studies on this subject.

Regarding the research objectives, we aim to answer the following research questions (RQ):

RQ1: How many articles specifically focused on financial and non-financial information and decision-making have been published and how has been their evolution?

RQ2: Which journals, authors, countries/regions, and organizations have more publications specifically focused on financial and non-financial information and decision-making?

RQ3: What are the most used keywords?

RQ4: Which articles, sources, authors, organizations, countries/regions and subtopics are most influential on financial and non-financial information and decision-making?

RQ5: What are the recent research trends?

This paper contains four sections. After this introduction, next section presents methodology followed in this research and third presents results. Finally, in last section, main study conclusions are drawn, implications of our findings are discussed, study limitations are acknowledged, and some topics for future research are suggested.

DATA AND METHODS

Following previous studies Monteiro et al. (2021a), we conducted a comprehensive research to collect articles focused on financial and non-financial information and decision-making. A search was performed to identify words or keywords to be used in the search for papers related to the research topic. In searching for articles in the WoS database, we used following combination of keywords :

Topic: ("financial information" or "non financial information" or "non-financial information" or "financial reporting" or "non-financial reporting" or "non financial reporting" or "non financial statement" or "non-financial statement*" or "financial statement*" or "voluntary information" or "mandatory information" or "accounting information" or "sustainability information" or "Directive 2014/95/EU" or "integrated reporting" or "financial measure*" or "non-financial measure*" or "financial indicator*" or "non-financial indicator*")*
And Topic: ("decision-making" or "decision making" or "economic decision*" or "financ* decision*" or "informed decision*")*

From search 1670 publications were generated (1168 articles, 457 proceedings papers, 49 reviews, 30 early access and 5 editorial material) . Proceedings papers, reviews, early access and editorial material were excluded. After reviewing all articles (1168), only those related to topic under research were selected (689). Thus, of the 1670 publications, 981 were excluded. PRISMA method was partially adopted in this research (Liberati et al., 2009). Figure 1 explains the sample selection.

Summarising, we obtained a total of 689 publications selected on 18 May 2021 from WoS database. Study includes all articles published until the date of collection.

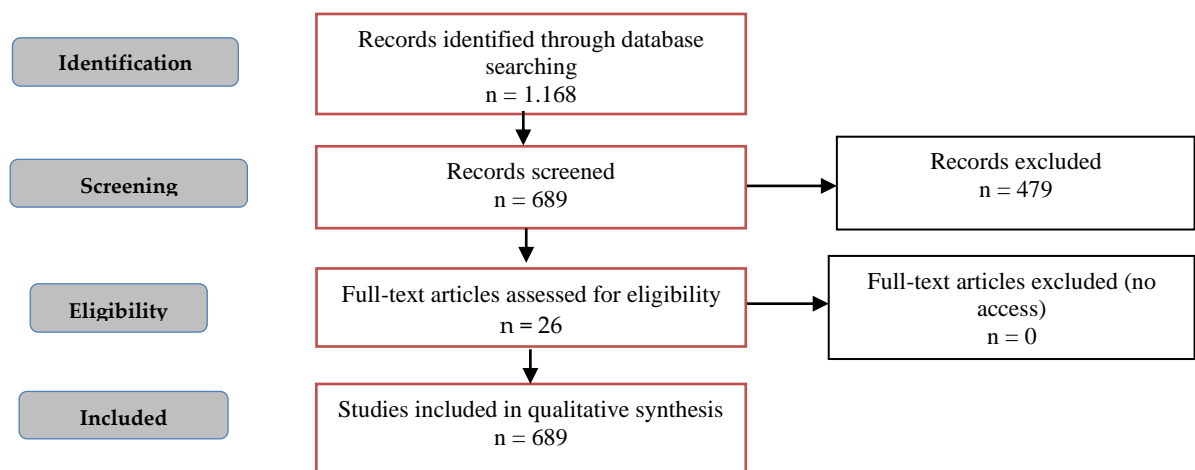


Figure 2 – Sample selections

This study is based on a quantitative approach which takes as reference bibliometric indicators of scientific production according to their impact on WoS database. In this regard, bibliometric studies use as main indicators the articles, authors, journals or sources, institutions, countries/regions and keywords (Llanos-Herrera & Merigo, 2019).

To perform data analysis, we used VOSviewer software, which pay attention to graphical representation of bibliometric maps in an easy to interpret way (Cobo et al., 2012). Specifically, we used four major bibliometric methods: citation analysis, co-occurrence analysis, bibliographic coupling analysis, and co-citation analysis. In these analyses the relatedness of items is determined based on the number of times they cite each other (citation analysis), the number of documents in which they occur together (co-occurrence analysis), the number of references they share (bibliographic coupling), and number of times they are cited together (co-citation analysis).

FINDINGS

In this section, we seek to answer the research questions.

RQ1 - How many articles specifically focused on financial and non-financial information in decision-making process have been published and how has been their evolution?

In bibliometric literature review, we identified 689 articles in the research area. First publication was in 1968. It was a pioneer study by Bruns, WJ with the title “*Accounting Information and Decision-Making: Behavioral Hypotheses*”. The maximum number of papers in this topic was in 2020. Rising trend line proves that the role accounting plays in decision-making in business is a broad topic that has driven academics (Monteiro et al., 2021b). In 2021 is expected to have more publications than 2020, as shown in figure 2.

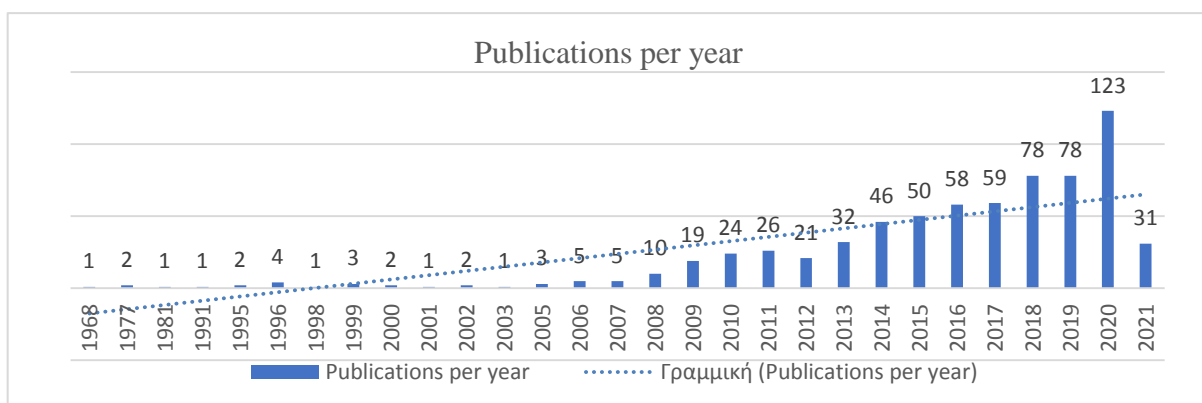


Figure 2- Number of publications per year (Source: WoS)

RQ2: Which journals, authors, countries/regions, and organizations have more publications specifically focused on financial and non-financial information and decision-making?

In this search field, we identified 368 journals with publications. The journal with the most publications is Sustainability, with 18 publications, followed by journal Revista Ambiente Contabil, with 17 papers, and Journal of Asian Finance Economics and Business, with 11 papers. All other journals had fewer than 10 publications.

Journal	Tp
Sustainability	18
Revista Ambiente Contabil	17
Journal of Asian Finance Economics and Business	11
Accounting and Finance	9
Contemporary Accounting Research	9
Accounting Review	8
Australian Accounting Review	8
Meditari Accountancy Research	8
Financial and Credit Activity-Problems of Theory and Practice	7
Journal of Applied Accounting Research	7
Public Money & Management	7
Reunir-Revista se Administracao Contabilidade e Sustentabilidade	7
Accounting Organizations and Society	6
Asian Review of Accounting	6
Journal of Business Economics and Management	6
Revista Contabilidade E Controladoria-Rc C	6
Revista De Contabilidad-Spanish Accounting Review	6
Revista Evidenciacao Contabil & Financas	6
Actualidad Contable Faces	5
Contabilidade Gestao E Governanca	5
Economic Research-Ekonomska Istrazivanja	5
Inzinerine Ekonomika-Engineering Economics	5
Journal of AccountingAnd Organizational Change	5
Managerial Auditing Journal	5
Southern African Business Review	5
Transformations in Business & Economics	5
Tp: Total publications; Source: WoS	

Table 11- Scientific production per journal (with 4 or more publications)

With a total of 1000 authors, Maria Beuren, Isabel Brusca, Sandra Cohen and Umbelina Teixeira stand out with 4 publications. All other authors had less than 3 publications in this timeline.

Table 2 shows the authors with 2 or more publications.

Author	Tp	Author	Tp
Beuren, Ilse Maria	4	Istrate, Costel	2
Brusca, Isabel	4	Kelton, Andrea Seaton	2
Cohen, Sandra	4	Kien Trung Tran	2
Teixeira Lagioia, Umbelina Cravo	4	Kober, Ralph	2
Achim, Monica Violeta	3	Kocmanova, Alena	2
Barth, Mary E.	3	Labro, Eva	2
Borlea, Sorin Nicolae	3	Monroe, Gary S.	2
Carp, Mihai	3	Nazari, Jamal A.	2
De Villiers, Charl	3	Ng, Juliana	2
Georgescu, Iuliana Eugenia	3	Nguyet Minh Nguyen	2
Hassan, Mohamat Sabri	3	Nitzl, Christian	2
Hirsch, Bernhard	3	Onofrei, George	2
Pavaloaia, Leontina	3	Pelger, Christoph	2
Ramljak, Branka	3	Pennington, Robin R.	2
Tiburcio Silva, Cesar Augusto	3	Pessoa Da Silva, Polyandra Zampiere	2
Abdollahi, Ahmad	2	Raimundini Sanches, Simone Leticia	2
Albu, Catalin Nicolae	2	Ramirez Corcoles, Yolanda	2
Albu, Nadia	2	Reimsbach, Daniel	2
Bonfim, Mariana Pereira	2	Rezaei Pitenoei, Yasser	2
Carlos Filho, Francisco De Assis	2	Roudaki, Jamal	2
Da Silva, Thais Alves	2	Safari Gerayli, Mehdi	2
Dani, Andreia Carpes	2	Salehi, Mahdi	2
Docekalova, Marie Pavlakova	2	Santos Penalver, Jesus F.	2
Dos Santos, Vanderlei	2	Savchuk, Dmytro	2
Esch, Martin	2	Steyn, M.	2
Evans, Elaine	2	Tejada Ponce, Angel	2
Guyen-Uslu, Pinar	2	Truong, Dothang	2
Hahn, Ruediger	2	Tseng, Ming-Lang	2
Hajek, Petr	2	Verdi, Rodrigo S.	2
Halabi, Abdel K.	2	Wald, Andreas	2
Handley, Karen	2	Wright, Sue	2
Hemmer, Thomas	2	Zampella, Annamaria	2
Iatridis, George	2	Tp: Total publications; Source: WoS	

Table 2- Total publication per author (with 2 or more publication)

Figure 3 show the top 10 countries/region with more publications. The country with more publications is USA with 116, followed by Brazil with 65, Australia with 62, England with 43 and Spain with 40.

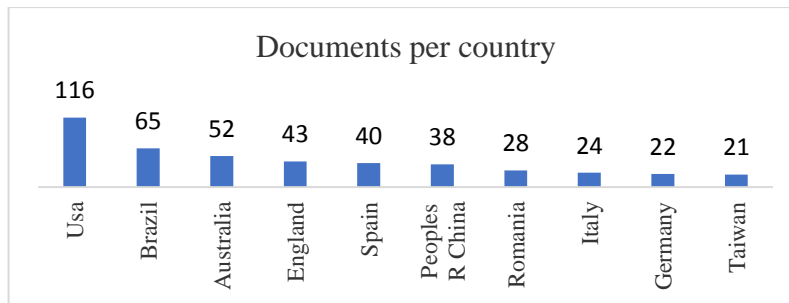


Figure 3 – Top 10 countries/regions with more publications

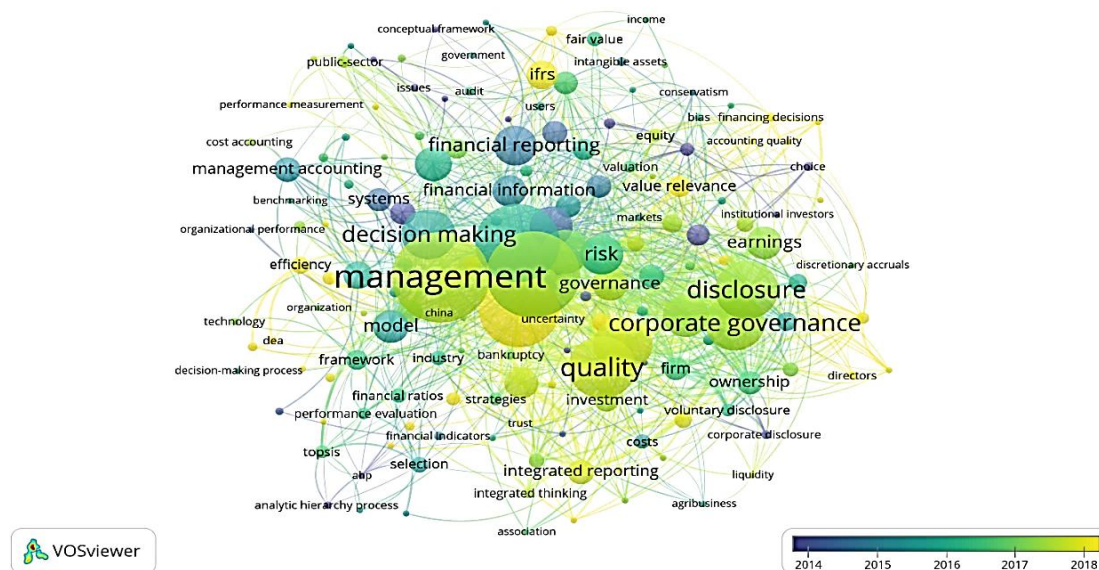
In total 920 organizations with publications in this research area, university São Paulo stands out with 9 publications, followed by Athens University Economic & Business and University Fed Santa Catarina with 8 publications. Table 3 presents publications per organizations with 4 or more publications.

Organisations	Tp	Organisations	Tp
Univ Sao Paulo	9	Australian Natl Univ	4
Athens Univ Econ & Business	8	Bucharest Univ Econ Studies	4
Univ Fed Santa Catarina	8	Lincoln Univ	4
Islamic Azad Univ	7	Univ Babes Bolyai	4
Macquarie Univ	7	Univ Castilla La Mancha	4
Monash Univ	7	Univ Coimbra	4
Univ Pretoria	7	Univ Kebangsaan Malaysia	4
Univ South Africa	6	Univ Politecn Valencia	4
Rmit Univ	5	Univ Queensland	4
Univ Auckland	5	Univ Salerno	4
Univ Brasilia	5	Univ Valencia	4
Univ Fed Pernambuco	5	Univ Zagreb	4
Univ Los Andes	5	Univ Zulia	4
Univ Zaragoza	5	Vrije Univ Amsterdam	4
Alexandru Ioan Cuza Univ	4	Wroclaw Univ Econ	4
Tp: Total publications; Source: WoS			

Table 3- Total publication per organization (with 4 or more publication)

RQ3: What are the most used keywords?

Figure 4 shows the frequency of the major keywords based on co-occurrence analysis. Most used keyword was "Management", "Performance" and "Information". Most recent words are "Quality", "Integrated reporting" and Corporate governance". The oldest key words are "Financial information", "Financial reporting" and "Accounting information".



Source: WoS and VOSviewer

Figure 4 - Most used keywords

RQ4: Which articles, journals, authors, organizations, countries/regions and subtopics are the most influential on financial and non-financial information and decision-making?

After literature review of the 689 articles, a survey was made of the most influential studies in the area, based on the total citations. We highlight the 12 most influential articles. Most influential article, with 178 citations, belongs to Adams, C. A. entitled "*The International Integrated Reporting Council: A Call to Action*" Adams (2015) paper sets out the case for integrated reporting and its potential to change the thinking of corporate actors leading to further integration of sustainability actions and impacts into corporate strategic planning and decision-making. It calls for academics to engage with process and to contribute to new forms of accountings development to help ensure this potential is reached. Given this importance, Hall's (2010) study, with 121 citations, found that managers use accounting information primarily to develop knowledge of their work environment and not as an input to specific decision-making scenarios. In this role, accounting information can help managers develop knowledge to prepare for future unknown decisions and activities.

In this line of research, there are influential studies focused on the determinants of decision-making, which include various types of information (financial and non-financial). Shroff et al. (2014), with 84 citations, examined how the foreign information environment in which foreign subsidiaries operate affects decisions of multinational firms' investment. Results suggest that foreign information environment helps mitigate agency problems that arise when firms expand their operations across borders. Kung and Wen's (2007) study, with 153 citations, sought to find significant variables of financial ratios and other financial indicators that affect financial performance of venture capital firms in Taiwan. With application of Grey Decision-Making, the authors analyzed six variables of firms'

attributes (ability of pay short-term debt; cash flow; capital structure; profitability; growth rate; operating efficiency on assets) that affect decision-making and consequently the financial performance. Francis et al.'s (2015) study, with 116 citations, investigated Chief Financial Officer's (CFO) gender effect on financial reporting decision-making. Their findings go to state that female CFOs are more conservative in their financial reporting and that accounting conservatism and decision-making are correlated variables. Similarly, Ho et al. (2014), with 92 citations, examined the relationship between CEO gender and accounting conservatism, and found a positive association between the two. This association appears to be stronger in firms with high rather than low litigation and assumption risks. Given financial and non-financial information relevance to decision-making, De George and Shivakumar's (2016) study, with 100 citations, examined International Financial Reporting Standards (IFRS) impact adoption on financial reporting quality, capital markets, business decision-making, management and governance, debt contraction, and auditing. Barth, et al. (2017, p. 43), also with 100 citations, found a positive association between integrated reporting and expected future cash flows "because this association could reflect better investor cash flow forecasts - a capital market effect, better internal decisions - a real effect, or both, we attempt to distinguish these explanations". Van Loo et al. (2015) study with 116 citations verified sustainability attributes influence on decision-making and concluded that they are important tools that increasingly influence consumers when purchasing products from companies in different sectors. Given sustainability importance for all businesses future, Dey's (2006) study, with 85 citations, proposes a decision support system, which analyzes projects with respect to market, technical aspects, and social and environmental impact in an integrated framework using an analytical hierarchy process, a multi-attribute decision-making technique.

Accounting evolves with society and in this way its usefulness has even more prominence, given its importance, Warren et al.'s (2015) study, with 73 citations, found that accounting with Big Data innovation will improve accounting information quality and relevance, thereby increasing transparency and stakeholder decision-making. Therefore, Kelton et al. (2010), in their study with 63 citations, reviewed accounting information systems research on information presentation format effects on judgment and decision-making. Authors provide a conceptual framework, describing the role of information presentation in individual decision-making.

We find that most influential studies focus on the "usefulness of financial and non-financial information in decision-making", "the factors that influence successful decision-making", "the relevance of integrated reporting", and "the evolution of digital accounting".

According to Table 4, Top 10 most influenced journal, author, organizations, and country are: Accounting organizations and society, Carol Adams, Monash University and USA.

Ro	Journal	Tc	Tp	Author	Tc	Tp	Organizations	Tc	Tp	Country or Region	Tc	Tp
1	Accounting Organizations and Society	319	6	Adams, Carol A.	178	1	Monash Univ	212	7	Usa	1716	116
2	Contemporary Accounting Research	238	9	Kung, Chuan-g-Yung	153	1	Vrije Univ Amsterdam	165	4	England	690	43
3	Decision Support Systems	200	3	Wen, Kun-Li	153	1	Univ Pretoria	147	7	Australia	667	52
4	Critical Perspectives on Accounting	178	1	Hall, Matthew	121	1	Univ Auckland	138	5	Spain	395	40
5	Journal of Business Ethics	163	4	Nayga, Rodolfo M., Jr.	116	1	Old Dominion Univ	133	3	Germany	321	22
6	Management Accounting Research	156	4	Park, Jong Chool	116	1	Univ Massachusetts Lowell	122	2	Peoples R China	314	38
7	International Journal of Production Economics	139	3	Seo, Han-Seok	116	1	Univ London London Sch Econ & Polit Sci	121	1	Netherlands	248	9
8	Accounting Review	136	8	Van Loo, Ellen J.	116	1	Fordham Univ	120	2	South Africa	206	20
9	Ecological Economics	125	2	Verbekke, Wim	116	1	Bank Finland	116	1	Taiwan	200	21
10	Journal of Information Systems	124	4	Wu, Qiang	116	1	Korea Univ	116	1	Norway	181	7

RO: Ranking Order; Tc: Total citations; Tp: Total publications; Source: WoS

Table 4 - The top 10 most cited source, authors, organizations and countries

RQ5: What are the recent research trends?

To identify the research trend in the research topic we analysed the most recently published articles. Thus, we highlight studies that allowed us to identify some research trends. Almaghrabi et al. (2021) analyzed financial information influence in the decision-making process. Given its importance, Georgiou et al. (2021) explored how decision-making usefulness is perceived and experienced by financial analysts when they use fair values in their work. Hamid and Loke (2021) studied relationship between socioeconomic factors, financial literacy, money management skills, overspending and impulsivity in credit card repayment decisions. Chahed (2021) studied accounting digitalization impact on companies' success.

In terms of less comforting periods for the global economy, such as the current one, Barbosa et al. (2021) analyse Covid-19's on disclosure volume of relevant facts related to publicly traded companies' projections. De Assis et al.' (2021) study examined how organisations in bio-based industry, based on information, perceive risk and perform risk analysis as part of capital investment decision-making process. Regarding various factors influence, internal and external, on corporate

information disclosure, Bar-Hod et al. (2021) analyzed determinants impact on effectiveness of corporate disclosures.

Costa et al. (2021) investigate manager perception influence of environmental uncertainty and performance measurement through financial and non-financial indicators on start-up firm's performance. Similarly, Cho et al.'s (2021) study, shows how environmental, social and governance factors can be relevant in standard regulatory capital structure of banks. In same line, Erawati et al. (2021) tested how corporate social responsibility disclosure helps moderate the effect of family ownership on investment efficiency.

Considering the above, in this research, we conclude that most recent studies focus on social and corporate responsibility and its importance for decision-making and business success. On the other hand, taking into account the period of crisis that the world is experiencing, recent studies have studied the influence of risk on decision-making and business success. Regarding the information produced by accounting, both financial and non-financial, studies have focused on the analysis of its usefulness and digitalization.

DISCUSSION AND CONCLUDING REMARKS

The importance of the information produced by accountants, both financial information and non-financial information, is useful for decision-making for all its users.

Since 1968 the subject has been the subject of studies, the year 2020 stands out as the year with the largest number of studies in the area, 123 published articles.

The USA is the country with the most publications, followed by Brazil, England, and Australia. Maria Beuren, Isabel Brusca, Sandra Cohen, and Umbelina Teixeira are the authors with the most publications. Considering the number of most influential publications, the journal and the institution are Sustainability and the University of São Paulo.

Most cited, author, journal, organization and country were Adams, Accounting Organizations and Society, Monash University and USA. Results show that most influential studies focus on the usefulness of financial and non-financial information in decision-making, the factors that influence the successful decision-making, the relevance of integrated reporting and the evolution of digital accounting.

Recent research trends focus on social and corporate responsibility and its importance for decision-making and business success. In addition, taking into account the period of crisis that the world is going through, recent studies have studied the importance of risk-related information on decision-making and consequent business success. Regarding the information produced by accounting, both financial and non-financial, studies have focused on the analysis of its usefulness and

digitalization. "Management", "Performance", and "Information" were the most used keywords and most recent used keywords are "Quality", "Integrated reporting" and Corporate governance".

This paper attempts to contribute to the development of the literature by highlighting the relevance of financial and non-financial information for decisionmaking. This research provides robust evidence on the growth of scientific production in this area essentially in last decade, highlighting its importance for firm's economic sustainability. Secondly, this study provides to area with the most influential research subtopics and identifies research trends, guiding researchers on research topics.

In this study we analyzed scientific production, using only the WoS database. Another study limitation is related to research subtopic analysis of most recent research. Thus, in future studies, we suggest the community of scholars interested in financial and non-financial information to decision-making to apply this study in other databases like Scopus and compare with our results, such as analyse suggestions for future research to reinforce the research trends pointed out in this study.

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INNOVATION AND RISK AVERSION IN FAMILY FIRMS: A LOOK AT THE INCREMENTAL AND RADICAL INNOVATION

Cerqueira, Sara; Meneses, Raquel

School of Economics and Management of University of Porto, Porto, Portugal

ABSTRACT

The paper seeks to determine whether innovation and risk aversion differ between family and non-family firms and whether there is a preference for some form of innovation. For this purpose, data were collected from a sample of 219 Portuguese companies, allowing the use of a quantitative methodology, which considered 5 research hypotheses, formally described and tested through t-tests. Although surprising, family businesses have the same risk aversion in relation to non-family firms and, therefore, adopt similar behaviors towards innovation strategies. In fact, contrary to what was defended, family businesses do not have a greater preference for incremental innovations, since non-family businesses also opt for this type of innovation. As a result, information is offered to family business managers, in order to avoid the main problems associated with innovation, since there is a tendency to consider them less innovative and more cautious, than not corresponds to reality as they take risks and develop their businesses as much as non-family businesses. More than that, the paper presents a broad base in the literature on innovation in family businesses, whose main contribution is the particular discussion of incremental and radical innovation, which tends to be ignored in other works, with an important comparison between the two types of businesses. Furthermore, the fact that the results contradict to some extent what is described in the literature is an important incentive for further research on this topic.

Keywords: family firms; non-family firms; innovation; risk aversion; radical innovations; incremental innovations.

INTRODUCTION

In the face of an increasingly informed and demanding public, companies increasingly feel the competitive pressures that threaten their survival. Particularly, family firms feel even more the challenges to remain in the market since they are significantly based on past knowledge, more conservative and less innovative (Duran et al., 2016). However, despite the wide range of literature on innovation and risk present in family firms, very few studies have distinguished the two types of innovation, radical and incremental, which present different levels of risk (Ritala & Hurmelinna-

Laukkanen, 2013). It is in this context that this paper proposes to fill this academic gap, trying to understand if the innovation and the risk are significantly different between family and non-family companies, and also whether these two types of companies have a preference for some form of innovation (incremental or radical).

As a result of this debate, in terms of innovation, it was possible to verify that SMEs are characterized by quick decision-making, a willingness to take risks and flexibility in responding to new market opportunities (Love and Roper, 2015). However, although most family businesses are SMEs, there are strong reasons to believe that the response to innovation in family firms differs from the response given by non-family businesses and SMEs in general (Calabrò *et al.*, 2019). Therefore, the literature does not characterize family firms in the same way as SMEs because they are a specific case, so they deserve special attention and an independent discussion.

Still, on an introductory basis, it is essential to note that there is a divergence in the way family businesses relate to innovation. On the one hand, many studies report that the concern with affective wealth due to the need to preserve wealth for future generations leads these companies to be more conservative and rigid, eventually fearing innovative projects (Li & Daspit, 2016). On the other hand, despite fears that the sustainability of their company may be jeopardized, they consider that "family firms are among the most innovative organizations in their markets and that they may even innovate at a faster rate than other types of business" (Deloitte, 2018, p.10). Considering this information, it will therefore be questioned whether, currently, family businesses are also less interested in taking risks associated with innovation than other non-family entities.

This study was divided into sections, starting with this introduction followed by a literature review and research hypotheses. This is followed by a description of the methodology and the entire data collection process, which culminates in an explanation of the procedures carried out. The subsequent section contains the presentation of the results, in which the support to the research hypotheses is verified. Finally, a discussion of these results is presented, ending the study with the conclusion section.

LITERATURE REVIEW

Family firms: concept

When entrepreneurs think about opening a business, they seek confidence in their partner and all those who will be part of their project. To establish this relationship of trust, and given the difficulty of connecting today, many entrepreneurs create a business with their family members (Clemente, 2017).

When researching this concept, there are diverse opinions and definitions that difficult to reach a consensus. The presence of the family in the company can be considered an essential criterion to distinguish family firms from the rest, but it is not the only one. Several criteria allow defining the

outlines of family businesses, given their complexity, not least because they often have different interests, that of the company and that of the family. However, analyzing the perspectives of other authors, it is attested that the notion of family business revolves around ownership, management and continuity (intention of intra-family succession). Properly understood as the patrimony that is acquired, that is, the company. Management in the sense of the need to have someone in the family take care of the stipulated family good. On the other hand, continuity demonstrates that, at a particular moment, the business will be passed on to the following generations (Cano-Rubio, Fuentes-Lombardo and Vallejo-Martos, 2017).

In short, family firms are, then, companies, as organized productive units, endowed with partial or substantial control, which is distinguished by the strong presence of the family. In addition, this type of organization is defined by the presence of family members in decision-making (that is, senior management or board of directors) which allows it to exert significant influence on its strategic decisions and operations (Arregle *et al.*, 2017). But family businesses are not limited to this. "A family firm is considered one idealized by the founder and composed by his family members. In other words, it starts with a family member who, as the owner, takes care of the direction of the business and starts to insert people with whom he has family ties so that they manage other tasks of the organization" (Rosa *et al.*, 2017, p.11).

Innovation in family firms

Innovation can be a powerful tool that allows companies to acquire, develop and maintain competitive advantages (Distanont and Khongmalai, 2020). However, it also carries significant risks as it requires time to produce results and leads managers to operate in areas where those results are difficult to predict and where the need for financial and human resources is inevitably greater. So, family firms end up having reasons to be less willing to innovate than non-family firms, as a consequence of risk aversion (Filser *et al.*, 2018), concern with the preservation of wealth, lack of essential capacities within the family and hesitation sharing control with non-family managers with these skills (Chrisman *et al.*, 2015).

The changes in the external environment require companies to respond, which is only possible with the development of processes to detect threats and opportunities. Thus, companies take advantage of these processes to adapt existing modes of operation or radically develop new procedures (Mikalef *et al.*, 2019) that correspond to incremental innovation and radical innovation.

Incremental innovations are changes related to improvements in what already exists in the organization, such as minor changes in products or services. Thus, this type of innovation, in addition to translating into few risks for the company, also does not require any transformation in its business activity (Slater, Mohr and Sengupta, 2014). On the other hand, radical innovations are characterized by

disruptive innovations and represent significant deviations from existing capabilities in the company, which form the basis for entirely new products, services or business models (Ritala and Hurmelinna-Laukkanen, 2013). Thus, although defined as the commercialization of a wholly new idea for the markets, radical innovation carries significantly more significant risks and uncertainties, unpredictable success rates and high failure rates (Rubera and Kirca, 2012).

De Massis et al. (2015) consider that family involvement in the company affects inputs, outputs, and innovation activities. According to these authors, family businesses make strategic decisions considering the family's heritage, so we expect more prudent behaviour in the management of innovation processes. Thus, compared to non-family firms, due to their risk aversion characteristics, concentration on affective wealth, concern for non-financial goals and high level of control by the family, family companies invest fewer resources in innovation than the rest of the companies. Still, at the same time, they are more efficient in transforming these resources into innovative results, especially when family members own the company and simultaneously lead it (Duran *et al.*, 2016).

However, despite the growth of research on innovation in family businesses, the existing literature has produced controversial results. Although it is argued that family businesses are recognized as the most conservative and devoted to their traditions, they also represent a large part of the most innovative companies in the world (Duran *et al.*, 2016). These forces that move towards the past and the future, respectively continuity and change, point to an apparent paradox of tradition - innovation. Thus, family firms leaders need to learn how to manage this paradoxical tension, if only because of the results of research on this topic that suggest that tradition and innovation can interact and coexist in family businesses playing an essential role in creating competitive advantages (De Massis, 2016).

Hypotheses Development

Different in objectives, management and resources, family businesses adopt behaviours that distinguish them from the rest, especially in active employee involvement and innovation. The role that the family plays in business has a complex influence on strategic decisions, especially in terms of processes and behaviours associated with innovation (Kammerlander *et al.*, 2020). In fact, companies where the family has a significant presence mean that factors related to the family itself, such as maintaining control of the company in the family's hands, preserving family values and good relationships within the family, condition the functioning of family firms. Such conditioning can lead the family to intervene conservatively in the company's business at risk of impacting the innovation processes (De Massis *et al.*, 2015). Based on this information, the following hypotheses were formulated:

Hypothesis 1 (H1): There is a correlation between risk aversion and innovation.

Hypothesis 2 (H2): Family firms tend to innovate less than non-family firms.

In contrast to non-family firms that tend to make narrowly-framed risk decisions (since decision-makers are evaluated according to short-term results and have limited freedom to distance themselves from profit-maximizing goals), family-owned companies seek to combine decisions with a long-term perspective (Fang *et al.*, 2021). This option on the part of family businesses, due to their concern with risks and the rigid organizational control focused on the preservation of wealth, leads to a greater tendency to avoid decisions that entail risks and uncertainties (such as radical innovations) capable of putting in place the company and, consequently, the family's assets. At the same time, these "conditions can further shape employees' ideas and behaviours towards a conservative trajectory and hinder innovative thinking over time" (Hu & Hughes, 2020, p.1218). The facts represented here led to the formulation of the following hypotheses:

Hypothesis 3a (H3a): Family firms are more risk-averse than non-family firms.

Hypothesis 3b1 (H3b1): Family firms tend to prefer incremental innovations.

Hypothesis 3b2 (H3b2): Non-family firms tend to prefer radical innovations.

METHODOLOGY

Over the years, different empirical studies have been developed, such as quantitative, qualitative or mixed research aimed at studying research questions and hypotheses (Evert *et al.*, 2016). A quantitative approach allows us to discard plausible alternative explanations and provides evidence that is much more consistent with the proposed explanation, thus enabling the study of phenomena more effectively (Bettis *et al.*, 2014). In this sense, quantitative empirical research was developed using a questionnaire, with the final objective of verifying differences in behaviour between family and non-family firms around innovation.

Sample and data collection

To test the hypotheses present in this work, data were collected from a set of Portuguese companies through the response to a survey. This set of companies was obtained through Sabi, a database with business information, current and historical, of more than two and a half million Portuguese and Spanish entities. Firstly, the research was concentrated on organizations in mainland Portugal that were in an "active" state. Second, the entities were filtered by their legal form, with associations, cooperatives, foreign entities and the "local/regional / state business sector" being removed from the list, as it is considered that the public sector tends not to be involved, significantly in the exploration of innovations (Kammerlander *et al.*, 2020). Thirdly, since contact with the respective entities would be made via email, only companies with an email were included. To obtain robust results, only companies with the date of incorporation until 31/12/2014 (inclusive) were covered. Finally, as a wide range of views on the company's institutional environment was intended, entities from different economic

activities were selected, with a preference for those with the highest Gross Value Added (GVA)). Thus, according to the National Institute of Statistics, on March 5, 2021, the economic activities with the highest GVA were the "Manufacture of metal building elements", the "Wholesale of consumer goods, except food, beverages and tobacco", and the "Auxiliary activities of transport".

As a result of identifying the most suitable criteria for this study, 5033 entities were contacted by email. As mentioned throughout this study, there are different interpretations of the concept of the family firm, so it is not surprising that various studies use other criteria. For this study, a company was classified as a family business if the family own at least 50% of the property, a limit that has been used in recent studies to ensure family control of the company (Debicki et al., 2020; Meroño-Cerdán et al., 2018). In this sense, considering the typology of the questions asked, if a family (the group of all members of the family) held at least 50% of the company's property, we ask that it be a member of that family to respond to the survey. Otherwise, we request that the respondent be the CEO or someone on the management team since these are expected to be the best informants (Kammerlander *et al.*, 2020).

Measurements and definition of variables

All variables were measured using existing constructions, and the responses to the measurement items for each of the respective variables were obtained using a seven-point Likert scale ranging from 1 ("strongly disagree") to 7 ("agree totally") or, in particular cases, through "Yes" or "No" answers.

Risk aversion (RA)

The risk aversion variable is based on Meroño-Cerdán et al. (2018) and measures a company's risk aversion in decision making. In this context, for this variable to be operationalized, companies were asked to evaluate, using a seven-point Likert scale, the following items: "In comparison with immediate competitors, the company tends to invest, as a rule, in projects whose results are certain" and "In comparison with the immediate competitors, the company, as a rule, carries out previously tested operations".

Innovation (INOV)

The company's innovation is an organizational characteristic measured according to Vandekerckhof et al. (2015). In this way, companies were invited to evaluate, using a seven-point Likert scale, each of the five items: "The company is often the first to introduce new products or services, new administrative techniques or new operational technologies, in relation to competitors", "The top management of this company often intends to be ahead of the competitors regarding the development of new products or ideas", "The top management of this company emphasizes R&D (Research and Development), technological leadership and innovation", "The company has launched many new products or services in the last five years" and "The changes made to products or services are often drastic". However, for

syntactic reasons, the fourth item was changed to "The company has launched new products or services in the last five years", with possible responses ranging from 1 (none) to 7 (many).

Incremental innovation and radical innovation (INOV_i; INOV_r)

Considering the importance of the innovation concept for this study, it became essential to detail the company's innovation, separating incremental from radical innovations. In this sense, the idea of Hervás-Oliver et al. (2019) establishes a radical innovation like the one that occurs when companies introduce changes that are new to the market and not just new to the company. Applying this to the questionnaire, companies were asked to answer "Yes" or "No" to the two items developed by the author concerning the product innovations introduced: 1- "An innovation only for the company (the company introduced new or significantly improved goods or services for the company, of which the competitors already had one in the market)"; and 2- "An innovation in the market (the company introduced new or significantly improved goods or services in the market before the competitors)". The first item makes it possible to measure the incremental innovation variable, which assumes a value of 1 if companies responded affirmatively and a value of 0 otherwise, while the second item allows operationalizing radical innovation with the same coding.

Procedures

Considering that this study's final objective is to determine if there are significant differences between non-family firms (group 0) and family firms (group 1), the t-test statistic of independent samples was used for equality of means and the t-test of paired samples in SPSS 27. Characterized by requiring normality, equal variances and independence in the sample, the t-test is currently the statistical test widely used in studies whose purpose is to compare means between two independent groups (Kim, 2015). Concerning normality, the central limit theorem was used, assuming that this assumption is never a severe violation. As for the equality of variances, the significance of the Levene test was analyzed to determine whether the data collected are homogeneous or not. In this sense, if the Levene test provides a significance greater than 0.05, the assumed equal variances are considered, otherwise, the values referring to the unassumed equal variances are used (Nguyen, 2018).

Additionally, to test the existence of a correlation between innovation and risk, the items of the respective variables were aggregated. A size reduction was performed in the SPSS, using the Varimax rotation method and assumed one factor to be extracted. Previously, the Bartlett test of sphericity was performed. Then, the analysis with the development of Pearson's correlation test between the two variables.

RESULTS

The combination of the criteria resulted in a theoretical sample of 5033 entities that were contacted, 219 responded to the questionnaire, 5 refused to participate and 125 had a full inbox, which resulted in a response rate of 4.5%, similar to other research projects such as Kammerlander et al. (2020) and Vandekerckhof et al. (2015). After verifying that all surveys had complete answers, 189 are family businesses, according to the definition adopted for this study (the family owns at least 50% of the property), and 30 are non-family businesses.

Hypothesis testing

An analysis of statistical significance was performed to support the research hypotheses. For this, tests of independent samples were developed for each of the items of the variables, more specifically Levene tests and t-tests, as well as t-tests of paired samples and Pearson's correlation tests. In the case of the t-test of independent samples, a null hypothesis was assumed for each item of innovation and risk aversion (the averages of the two groups, family and non-family firms, are equal) and an alternative hypothesis (the average of the two groups, family and non-family companies, are different), which are proven according to the statistical significance obtained. Levene's test for equal variances provided a significance value greater than 0.05 for all variables, so the option "assumed equal variances" was used. Similarly, the t-tests of paired samples for incremental and radical innovations assumed a null hypothesis (the means of the variables are the same) and an alternative hypothesis (the average of the variables are different) for both family businesses and non-businesses.

The t-test of independent samples (shown in table 1) revealed that the statistical significance in the model was neither significant nor consistent for any of the hypotheses H2 and H3a (p-value greater than 0.05 for all observed items). In this sense, it was impossible to reject the null hypothesis (that is, the averages of family and non-family companies are the same) for each item of innovation and risk aversion.

Hypotheses	Items	Levene test		T-test for equality of means			
		Z	Significance	t	df	Significance	Mean difference
H2	INOV1	0,103	0,749	0,029	217	0,977	0,008
	INOV2	0,019	0,891	-1,436	217	0,152	-0,378
	INOV3	0,188	0,665	-0,913	217	0,362	-0,270
	INOV4	2,915	0,089	-0,889	217	0,375	-0,331
	INOV5	0,323	0,570	-1,684	217	0,094	-0,450
H3a	RA1	0,355	0,552	1,584	217	0,115	0,408
	RA2	0,018	0,893	-0,200	217	0,842	-0,056

Table 1. *Independent Sample Testing*

Similarly, the paired samples t-test revealed p-values greater than 0.05 (table 2), which indicate the impossibility of rejecting the null hypothesis (the means of the variables, incremental innovation and radical innovation, are equal) for both family and non-family businesses.

Hypotheses			t	df	Significance
H3b1	Family Firms	INOV _i INOV _r	- 0,843	188	0,401
H3b2	Non-Family Firms	INOV _i INOV _r	- 0,000	29	1,000

Table 2. *Test of paired samples*

On the contrary, the analysis of the results of Pearson's correlation in Table 3 demonstrated the existence of a correlation, albeit low, between the variable innovation and risk aversion, resulting from obtaining a p-value of less than 0.01, thus supporting hypothesis H1.

Correlations			
Hypotheses			Risk Aversion
H1	Innovation	Pearson Correlation	0,18
		Significance	0,007

Table 3. *Correlation between innovation and risk aversion*

DISCUSSION OF RESULTS

This study examines the complex relationship between innovation and risk aversion between family and non-family firms, using a sample of Portuguese entities. As a result, we seek to launch a new view on the critical debate around the behaviour of family businesses, especially when faced with these strategic activities (De Massis et al., 2015).

The literature review indicated that organizations with a strong presence of families adopt more prudent behaviours in the innovation processes because strategic decisions consider the family's assets invested (Filser *et al.*, 2018). In this sense, the reluctance to lose control of the company can generate differences in the extent of investment and management of innovation processes between family and non-family companies, with family firms occupying a lower place (De Massis *et al.*, 2015). However, the results obtained revealed that, for the sample under study, innovation is not inferior in family businesses, nor is it any different from non-family companies, showing why, on average, both behave similarly concerning innovation.

Similarly, the hypothesis that risk aversion is greater for family companies than for non-family companies was also studied, as this could be the cause of their lesser tendency to innovate, as advocated by the literature (De Massis *et al.*, 2015). This is because, according to Meroño-Cerdán et al. (2018), the family's wealth is often concentrated in the company itself, leading them to make more careful, proven and short-term decisions. However, although it has been found that innovation and risk

are correlated, the results obtained revealed the absence of significant differences between the two groups of companies. Thus, on average, family and non-family companies have an equal aversion to risk, which translates into the fact that both are intensely concerned with the organization's success. In addition, as a result of bibliography considerations, more significant risk aversion and concern for the preservation of wealth, many authors note that these companies innovate in a more incremental than radical way and that the opposite applies to non-family firms (Hu and Hughes, 2020). Although globally mentioned, the tests developed did not reveal significant disparities in this context of radicality. In fact, family firms also prefer radical and incremental innovations. On average, the number of radical innovations and the average number of incremental innovations developed by this type of company is equivalent. Such conclusions were also obtained for non-family businesses, and they also adopted, on average, the same number of radical and incremental innovations.

In short, none of the hypotheses, H2, H3a, H3b1 and H3b2, was supported in this study, verifying that family and non-family firms effectively behave similarly. Only hypothesis H1 of the relationship between innovation and risk aversion in family and non-family businesses was effectively supported.

CONCLUSION

"Family firms play a major role in economies throughout the world. It is, therefore, not surprising that issues related to family firms and their impact on firm operations have long been the subject of inquiry and continue to challenge strategy researchers and practitioners" (Lin & Wang, 2021, p.113). Among these issues, innovation is crucial since investment in this strategy reinforces business growth and productivity. In fact, much research examines the strategic decisions of family businesses, the investments made, and the innovations developed, comparing them to those of non-family firms.

Through empirical research, it was convincingly concluded that, although there is a relationship between innovation and risk, family firms are neither more nor less afraid of organizational risks than other companies and that there is no substantive difference between the levels of innovation between the entities. In fact, contrary to what was widely advocated, family-owned companies also do not have a greater preference for incremental innovations, as non-family businesses also opt for this type of innovation. Such an outcome is, in reality, consistent with the fact that there are no differences in risk aversion since if both groups of companies behave in the same way, given the risks of decision-making, they would also be expected to assume the same extent as well (radical and incremental innovations).

Thus, in terms of theoretical contributions, the present work differs from the others by giving equal importance to innovation strategies, studying separately radical and incremental innovation, and behavioural factors between family and non-family companies in the presence of risk decisions. And that, although the results are opposite to those defended by many authors, family firms continue to be

among the entities with the most remarkable presence in countries like Portugal, and they should not be seen as more backward, less developed, less innovative and more cautious, because in reality, they risk and develop their businesses as much as non-family firms. Therefore, it will be important that future studies analyze whether this equality remains independent of the family's involvement in the effective management.

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SERVITIZATION AND PRODUCT-SERVICE SYSTEM: A BIBLIOMETRICS ANALYSIS

Cutugno, Mariapia; Abbate, Tindara; Cesaroni, Fabrizio

Department of Economics – University of Messina – Italy

ABSTRACT

This document aims to provide an overview of the existing literature in the context of servitization and the Product-service system. Numerous industries are moving towards providing advanced services to their customers. This domain concerns manufacturing companies that move from the development, production and sale of products to the sale and provision of services, more precisely of a Product-service system. This paper aims to provide an overview of these specific topics by reviewing and discussing the main findings available in the scientific literature. The analysis of the literature is articulated around two main dimensions: servitization and the development of a Product-service system. The contribution of this review is twofold. First, it provides an overview of the servitization literature through a bibliometric analysis. Secondly, it examines the concept of PSS to underline the evolution of the literature on the subject. The study sheds new light on these two topics, highlighting several ideas for further directions of research.

Keywords: servitization, PSS, bibliometrics, collaboration

INTRODUCTION

This document aims to provide an overview of the existing literature in the context of Servitization and the Product-Service System, using a bibliometric analysis done with the VosViewer software.

The business environment for the manufacturing industry has changed significantly (Zhou and Song, 2021) because a well-designed product is no longer considered criteria for a clear competitive advantage. Numerous sectors are moving towards providing advanced services to their customers (Kowalkowski et al., 2015; Martinez et al., 2010; Reim et al., 2016). This domain concerns manufacturing companies that move from the development, production, and sale of products to innovation, sale and provision of services, more precisely of a Product-Service system (PSS) (Davies, 2004; Gebauer et al., 2010; Oliva and Kallenberg, 2003; Tukker, 2004; Ulaga and Reinartz, 2011).

The transition to services is generally a strategic need for overcoming the maturity phase of the product which leads to a limited growth in turnover (Kowalkowski et al., 2017).

This priority was already addressed less than twenty years ago, when servitization was first mentioned (Vandemerwe and Rada, 1988). Manufacturing servitization has become a common business practice

that allows customers to achieve product-service combinations tailored to their needs. In summary, it allows companies to better position themselves on the market (Baines et al., 2009). This phenomenon is an ever-evolving process of change (Baines et al. 2017). Most of the articles are not based on a specific theory but try to give a general overview of these research fields, leaving out conceptual aspects that may emerge from a more in-depth analysis, and accompanied by specific practices (Martín-Peña et al., 2017). Servitization implies a complete change of the traditional product-based business model towards a new approach more focused on meeting customer expectations, which promotes the sale of the services associated with its use (Gaiardelli et al., 2021). This change involves the provision of the so-called PSS: “A system of products, services, networks of actors and supporting infrastructures that continually strives to be competitive, to meet customer needs and to have less impact environmental compared to traditional business models”(Goedkoop et al., 1999, 5).

The concept of PSS is not a new one. The first article discussing PSS was published in 1999 (Goedkoop et al., 1999). After more than 20 years of research, PSS has grown into a rich and diverse field. Related concepts include integrated solutions (Windahl et al., 2004), service transition (Kowalkowski et al., 2015), service infusion (Kowalkowski et al., 2017), total care product (Alonso-Rasgado et al., 2004; Liu et al., 2018), integrated offer of products and services (Paivarinne et al., 2016; Nilsson et al., 2018).

Due to the vast research in the PSS field, it is necessary to conduct a more focused scientific review to have a complete picture of the existing literature by analyzing interdisciplinary connections focusing on management and unexplored business area. More than 40 review articles have been published so far, some focusing on the definition, characteristics and potential benefits of PSS; others, instead, dedicated themselves to identifying effective methodologies for the implementation, development and design of a PSS. Although there have been many previous reviews, most of them has used a subjective and qualitative analysis. In this perspective, this paper aims to provide an overview of these specific topics by reviewing and discussing the main findings available in the scientific literature. The analysis of the literature is articulated around two main dimensions: servitization and the development of a PSS.

The contribution of this review is twofold. First, it provides an overview of the servitization literature by using a bibliometric analysis. Secondly, it examines the concept of PSS to underline the evolution of the literature on the subject and its definition and implementation. The data analyzed in this document refers to 421 selected articles on Web of Science (WoS) and the tools used are Biblioshiny and VOSviewer.

This article is structured as follows: the methodological section describes the data collection process and introduces bibliometric analysis and the tools used. Subsequently, the results section illustrates the research outputs of the various analyzes carried out. Furthermore, on the basis of the results, the

development status and future trends of the servitization and PSS research sector are discussed and deepened.

METHODOLOGY

Bibliometrics analysis

As previously stated, bibliometric analysis examines the published articles in a quantitative way (Shiffrin and Borner, 2004). It supports researchers in understanding the distribution of knowledge in the research world. An important result of bibliographic analysis is the scientific knowledge map: it uses visual graphics to illustrate the structure, content, development process and explored areas of a research field (Shiffrin and Borner, 2004). To carry out this type of analysis, this study used VOSviewer 1.6.15 and the RStudio software with the application of the Biblioshiny package. These softwares made it possible to analyze the retrieved literature and provide graphical analyzes of the topic. VOSviewer is a software tool for building and visualizing bibliometric networks. These networks can for example include journals, researchers or individual publications and can be built on the basis of citations, bibliographic couplings, co-citations or co-author reports. On the other hand, the Biblioshiny software package allows users to perform relevant bibliometric and visual analyzes on an interactive web interface.

Co-authorship analysis

In this analysis, researchers, research institutes or countries are linked together based on the number of publications they have jointly created. Scientific collaboration can be defined as the interaction that occurs within a social context between two or more scientists, which facilitates the sharing of meaning and the fulfillment of tasks in relation to a mutually shared goal (Sonnenwald, 2007). This can also help broaden the scope of a research project and foster innovation as it provides access to different disciplines (Beaver, 2001). Co-authored analysis provides insight into the patterns of cooperation between individuals and organizations (Newman, 2004). Co-authorship of a document is an official statement of the involvement of two or more authors or organizations (Newman, 2004). Despite the debate over its meaning and interpretation (Beaver, 2001; Laudel, 2002), the co-author's analysis is still widely used to understand and evaluate models of scientific collaboration.

Co-occurrence analysis

Keyword co-occurrence analysis is an effective method for exploring research topics and new search trends because keywords provide a concise and accurate high-level summary of the document (Fang et al., 2017). The VOSviewer tool can extract the keywords from the document and then calculate the frequency. Finally, it acquires a keyword co-occurrence matrix used for keyword co-occurrence analysis (Park and Nagy, 2018). This study used VOSviewer to extract all keywords from 421 articles

and draw the keyword co-occurrence network to identify the boundaries of servitization and PSS search.

Bibliographic coupling

It is possible to build bibliographic coupling networks for different units of analysis, such as publications, journals and researchers. In a literature-matching analysis of researchers, the kinship of researchers is determined based on the degree to which they cite the same publications. The more often two researchers cite the same publications, the stronger their kinship (<https://www.vosviewer.com>). The term "bibliographic coupling" was first proposed by Fano, but the concept was introduced by Kessler of MIT in 1963. Kessler (1963a) proposed that bibliographic coupling occurs when two works refer to a third common work in their bibliographies, and the "coupling strength" of two given documents depends on the number of citations they share. The concept immediately caught the attention of academia. In addition to critical reviews, numerous tests were conducted with data from large databases. While early works on bibliographic matching focused on improving the efficiency of information retrieval (Kessler 1963a, b, 1965), numerous studies have used bibliographic matching to identify research fronts, mapping current industrial development, building the network of citations and analyzing the degree of academic information exchange or categorization of specialized journals. For this study, bibliographic coupling is used to analyze the sliding window of highly cited articles in the field of servitization and PSS to allow for the classification of articles.

Data collection

There are various databases, such as Inspec, El Compendex, Scopus, etc., which allow the collection and selection of articles thanks to keywords to identify the search domain. In bibliometric studies, however, these databases have not been widely used, leaving a wide range of action for the Web of Science database (Castillo-Vergara et al., 2018). (Castillo-Vergara et al., 2018). The WoS database is used to extract bibliometric information, because it is a structured database that indexes the main selected publications and covers most of the significant scientific results (Wildgaard, 2015). The keywords used in this document are: Servitization *, "Product-service system *". To avoid catching other misleading arguments on the subject, we wanted to refer to this string: Servitization * or "Product-Service system *"; this has allowed us to focus more on the subject of the research, being that in the field of research there are the same acronyms as PSS which, however, refer to other subjects. In our first search, 2666 articles came out. To refine the search, removing the references that would only have misled, filters were applied: the first was to consider only articles published in the management and business area; then reference was made to the articles with early access and in English. At the end of the screening, 421 articles were found on the subject of servitization and PSS in the management and business area.

RESULTS

Research output

Trends in producing articles on servitization and PSS are constantly changing. Fig. 1 illustrates the distribution of publications made in every single country in the world.

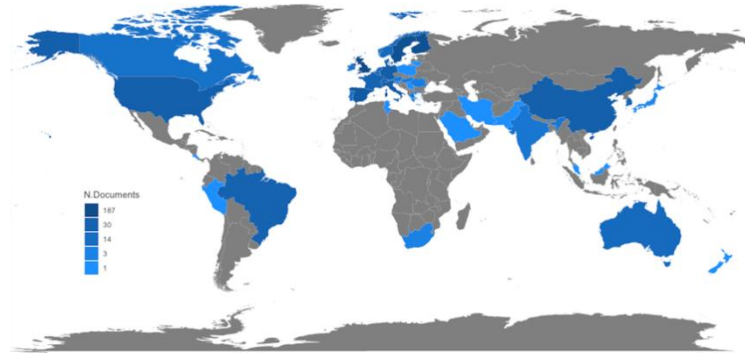


Fig. 1 Country scientific production

The scientific production covers from 2009 to 2021. According to the number of publications, the countries that emerge in the world context are Sweden, England and Western Europe (Spain, Germany, Denmark), covering the range from 30 to 187 articles published. Followed by the USA and China with a range of publications from 30 to 14 articles. Given this first glimpse of the countries of the world that are approaching to write about servitization and PSS, we refer to the number of publications made in the years from 2009 to 2021 (see Figure 2).

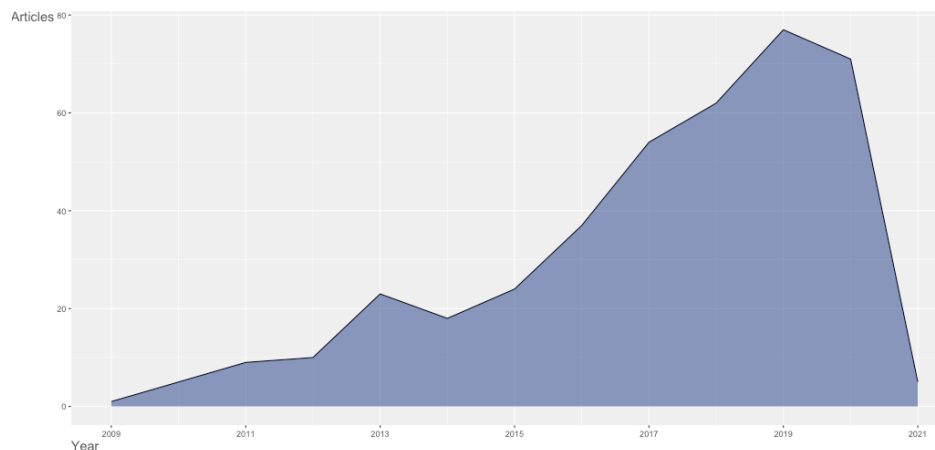


Fig. 2 Annual scientific production

There is a clear upward trend (except in 2021 due to the study date), indicating the increased focus on servitization and PSS research. The curve in Fig. 2 can be divided into three growth stages.

1 - Exploration phase (2009 to 2012): the annual number of publications in this time range is very small.

A study of the first concepts of the subject was started in 1999, going on with the years, peaks and declines in research have alternated. In 2011, there was much more discussion about the accepted definition of PSS, the design methods of PSS, and what servitization and PSS mean to business, society and the environment.

2 - Development phase (2013 to 2016): in recent years the research has opened its horizons by defining the first implementation strategies of servitization and PSS both in large and small companies, and of the most significant success factors (Cavalieri and Pezzotta, 2012).

3- Research rearing phase (2017 to the present): the annual number of documents has grown rapidly in recent years. Here, one of the reasons is that with the development of information and digital technology, the world has paid more and more attention to the development of servitization and intelligent manufacturing.

Co-authorship analysis

The collaboration network between countries regarding servitization and PSS is shown in Fig. 3.

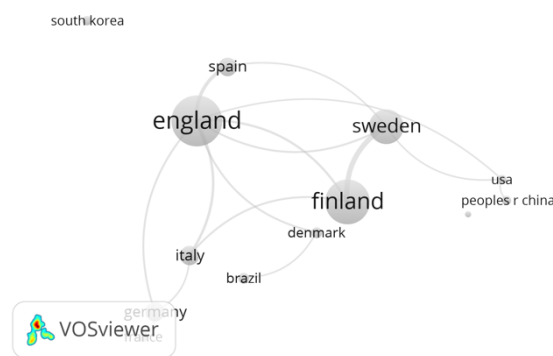


Fig. 3 Country collaboration

A node in the figure represents a country and the size of the node is proportional to the number of articles published by the country. If the authors of an article are from different countries, each country pair will have a partnership represented by the link between two nodes. The thickness of the link is proportional to the strength of the partnership.

COUNTRY	DOCUMENTS	CITATIONS
Sweden	77	1821
Finland	88	1888
England	100	3518
Spain	42	1079
Italy	40	523
Switzerland	19	472
Germany	40	754
USA	26	636
France	21	271
Denmark	22	186
China	21	48
Brazil	18	272
South Korea	15	259

Table 1. Country publications

Table 1 lists the top 13 countries that account for most of the total output, their number of publications and their citations. England is the most prolific country, with 100 articles, followed by Finland, with 88

articles. In recent years, these countries have based all their work on the adoption of innovative practices with less environmental impact, such as a PSS package. All this is strengthened by the fact that among the first countries there are Finland and Sweden, which influence all their work, at any organizational level, from public administration to universities, to the maintenance of standard levels of environmental impact of any innovative practice, they are very attentive to environmental policies. However, as the graph illustrates, South Korea has little cooperation with other countries, being isolated in the graph. The countries very open to collaboration, as we can see, are England, Finland, Sweden and slightly less Spain. On reflection, most of the countries are in Europe, which indicates that Europe is the central area of PSS services and research. Figure 4 shows the collaborations between the most important authors who are interested in servitization and PSS.



Fig. 4 Author collaborations

From this illustration it is clear, and the affirmations made up to now, that the greatest collaborations are established between authors who work in Northern Europe, especially between Sweden and Finland, such as Parida, Wincent, Kohtamaki and Gebauer.

Co-occurrence analysis

In Fig. 5, a node indicates a keyword. The size of the node represents the frequency of the keyword and the color represents the average year in which it appears. Cool colors refer to previous years, while warm colors represent more recent years. The connection between the nodes means that they have been used in the same article and the thickness is proportional to the number of times they are used at the same time.

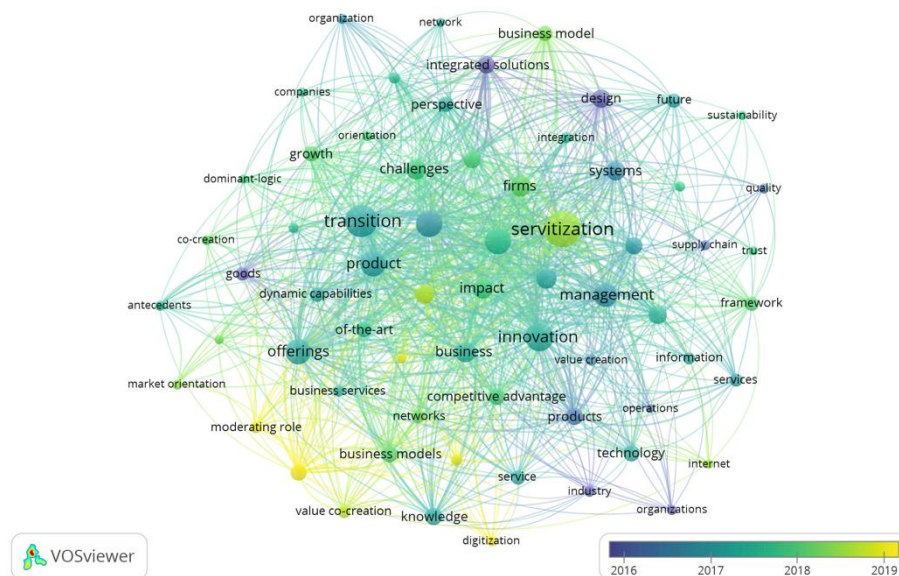


Fig. 5 Keywords co-occurrence

We find that most of the keywords related to "servitization" in Fig. 5 are present as cool colors. This indicates that these keywords were used between 2016 and 2017. To identify emerging research themes, we mainly focus on those knots with warm colors. The most recent keywords are: servitization, Service Innovation, digitization, manufacturing firms, business model innovation and capabilities.

Bibliographic coupling

Based on this type of analysis, we have come to classify all the reference literature on servitization and PSS into three clusters (as seen in Figure 6).

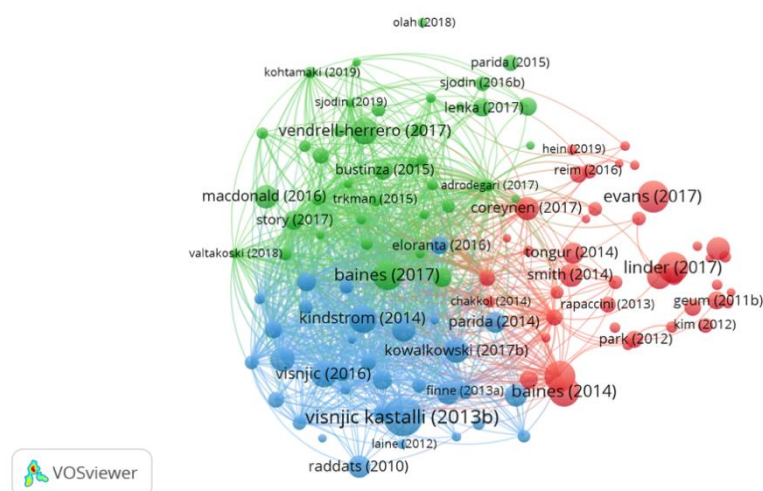


Fig. 6 bibliometrics clusters

Cluster 1: Product-service system

The first cluster, colored red, refers to the characteristics, implementation and development of PSS. Extensive research suggests that moving to solutions, an integrated combination of products and services, offer strategic benefits to manufacturing firms, including higher customer satisfaction, higher profitability and more stable revenue streams (Mathieu, 2001; Oliva and Kallenberg, 2003; Vandermerwe and Rada, 1988). With this in mind, companies increasingly develop and market PSS to obtain a competitive advantage (Antioco et al., 2008; Manzini and Vezzoli, 2003). The PSS implies offers that include one or more associated product and service features. Although a company may decide to offer a PSS from the start, the usual path towards such an offer is that a manufacturing company adds the missing component (service) to its offer (Kuijken et al., 2017). Consequently, a PSS can be defined as a served business model. To reach this new dimension, a coherent and integrated design and management of innovative PSS business models is required (Resta and Gaiardelli et al., 2017), which will drive the incremental evolution from a product-oriented transactional approach to result (Tukker, 2004). Scholars argue that, thanks to its innovative and convergent nature, PSS enables enterprises to become more dynamic and improve their ability to withstand the rigidity of business caused by high market competition, fragmented customer demand and accelerating business. 'innovation (Almeida et al., 2008; Beuren et al., 2013; Park, Geum and Lee, 2012).

Cluster 2: Servitization 4.0

The second cluster, green in color, takes into consideration the relationship between digitization and servitization. Servitization studies tend to see IoT, digitization, and IT capabilities as intrinsically related to servitization - full servitization would not exist without effective data acquisition, storage, analysis and use, across a variety of sensors, data warehouses, big data analysis and user interfaces, which allow to effectively serve the installed base or to increase customer value by improving the use of the fleet of products in use (Ardolino et al., 2018; Martín-Peña et al., 2018). Digital servitization is defined as a transition process from pure products and additional services to intelligent product-service systems. Product-service systems also include software, as defined by the first servitization study (Vandermerwe and Rada, 1988). As stated, in the context of servitization and product-service systems, a variety of concepts have been used, such as digital servitization, intelligent product-service systems, digitized product-service systems, intelligent products, IoT and industrial Internet, with various definitions. For a long time, studies have seen the opportunities that digitization is generating for companies providing solutions, suggesting that these industrial companies need to develop capabilities to seize these opportunities (Huikkola and Kohtamäki, 2017).

Cluster 3: servitization strategy

The growth of services in manufacturing companies has become one of the most active service research domains, to the point that it has been identified as a strategic research priority (Ostrom et al., 2015).

Thus, servitization is often described as a transition, in which the company moves from providing pure standalone additional products and services to maintenance contracts, operational services, and ultimately results-based or performance-based offerings (Huikkola and Kohtamäki, 2018; Kowalkowski et al., 2015; Parida et al., 2014; Visnjic et al., 2017).

Advocates of service-oriented strategies point to the economic, strategic and environmental benefits of pursuing a service-oriented strategy. Services are attractive because they are characterized by high margins and stable revenues (Brax and Jonsson, 2009; Gebauer and Fleisch, 2007). From a strategic perspective, services can establish a close and long-term relationship with customers, which at the same time locks in competitors. Furthermore, integrated solutions are less easy to replicate, making them a lasting source of differentiation (Chesbrough, 2011; Mathieu, 2001; Neely, 2008; Oliva and Kallenberg, 2003).

DISCUSSION

The research themes progressively show an interdisciplinary merging trend that illustrates the various publications in the various research disciplines, such as Management, Business, Industrial Engineering and Manufacturing Engineering. This finding is also reinforced by the origin analysis of emerging researchers in the field, such as Parida (2014), Wincent (2017) and Kohtamäki (2018) who are servitization scholars in the discipline of business economics. The emergence of the words servitization, service innovation, digitization, manufacturing enterprise, business model innovation and capability (see Fig. 5) in recent years shows a trend towards interdisciplinary integration. Interdisciplinary actors will further merge with each other to generate some interesting research opportunities in the age of digitization, for example digital servitization / PSS (Liu et al., 2020), and the balance between environmental, digital and cost elements of servitization. Secondly, the number of research papers is unevenly distributed between countries and research institutes. Some countries (e.g. England) have published 100 articles on PSS and servitization research fields, while others (e.g. South Korea) have only published 15 articles on the topics (see Table 1). However, the influence of a region in this field cannot be measured only by the number of articles published but can be analyzed on the basis of the collaboration relationship it establishes with other countries. The importance of emerging countries, in fact, is also reflected in the strength of the collaborations between them: the countries that open up to different collaborations are England, Finland and Sweden, accompanied by Italy and Spain, but in a more contained way. Third, although servitization researchers from different regions have formed relatively regular cooperation groups (see Figure 4), some scholars at the group interface may have more diverse research perspectives. This is because these researchers have more opportunities or are more willing to collaborate with other research groups (Zhou and Song, 2021). Working with these

scholars at the research team interface can lead to unexpected cross-fertilization of ideas in the field of servitization and PSS research. The major authors come from Europe (Sweden, Finland), making this area the most important in the conceptual and strategic development of servitization and PSS. Fourthly, the bibliographic research made it possible to classify all the works in the field of servitization and PSS, grouping them into conceptual clusters. From these emerged the most explored concepts of the research field, such as PSS in all its development and implementation practices, servitization 4.0 that embraces the world of digitization. This field has seen a very substantial surge in publications in recent years. Finally, the development of strategic servitization practices, focusing the research lens on the methods of implementation, on the risks that the implementing companies may incur and on the benefits that they can derive from the introduction of all-round services in their offers to the public. In summary, some of our research findings coincide with Tukker (2015) that PSS and servitization have been incorporated into a wider range of scientific research fields. This research also suggests that a possible exchange of knowledge between scholars could be beneficial to all participants in different disciplines, which is consistent with Boehm and Thomas (2013).

CONCLUSION

In this article, we conduct a bibliometric analysis of the servitization and PSS with co-authorship, co-occurrence analysis, and bibliographic matching. The analysis of the results shows that the research topics in the fields of servitization and PSS are grouped into conceptual clusters such as PSS, servitization 4.0 and servitization strategy. Furthermore, Sweden and England are the countries that stand out in the European publishing context, increasingly promoting the dissemination of knowledge in this research field. We also find that some researchers from Europe (Sweden, Finland and England) play an important role in linking the various research areas. In fact, in recent times, the authors, in addition to developing strategic methods of servitization and PSS, are opening a new field of research by combining digitalization with these new business practices, demonstrating the dynamic characteristics of servitization research. We performed bibliometric analyzes of servitization and PSS research with a simple and objective knowledge mapping technique. The search procedure is transparent, and the results can be reproduced in other search fields using the same approach. The document provides insights that reveal the distribution structure of literature on a global level, the collaborative relationship that is established between emerging countries and authors and the continuous change in research trends in the field. The study has some limitations that offer suggestions for further investigation. This bibliometric analysis is based solely on the databases of the Web of Science. The future use of other databases such as Inspec, EI Compendex and Scopus is not excluded. Furthermore, bibliometric analysis is a popular research method that allows scholars to examine the

previous and future growth of scientific work, but it also has some weaknesses, such as evaluating scientific work without considering that citations take time to accumulate. In the future, the content analysis method can be used as a method for assessing the quality of research and extracting the results of a study.

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THE DIFFERENT PERCEPTIONS OF THE COUNTRY-OF-ORIGIN EFFECT OF PORTUGAL

Damásio, Luís; Meneses, Raquel

School of Economics and Management of the University of Porto, FEP, Porto, Portugal

ABSTRACT

Purpose: This research looks to collect a range of perceptions from different countries to the made in Portugal, and in that context, it aims to clarify that the cue on the country of origin is dependent on the host country's perceptions of the country of origin, a topic broadly disregarded in literature.

Methodology: A quantitative study with a non-probabilistic sample, applied through an online survey in 68 different countries grouped in seven cultural clusters using the snowball method. PLS Multigroup analysis was applied to identify differences between groups.

Findings: The current research shows that the image of Portugal is positively recognised abroad and that foreign consumers are influenced by that image on their perceptions about products made in Portugal. Additionally, it is found that consumers' nationality and culture lead to more or less permeability to the impact of that effect.

Originality/Value: This study demonstrates that consumers play a crucial role in the understanding of the country-of-origin effect, and for that matter, the study of the effect should consider not only the product's origin attributes but also the recipient's characteristics, in particular nationality.

Keywords: Country of origin effect, Internationalisation, Made in Portugal

INTRODUCTION

Even with all current restrictions due to the pandemic situation, the exchange of products worldwide still occurs significantly as a consequence of the globalisation process itself. So, products and services sold in a country have different origins, which is ultimately a component of the products and services' descriptions, subject to consumers' perceptions (Karoui and Khemakhem, 2019).

The origin information is incorporated in a product through the "made in" label, which is called in literature as country of origin. This label causes reactions on consumers perceptions, as it impacts the consumers' judgement when evaluating a product. The effect on consumers' product perceptions due to its origin is called the country-of-origin effect (from now on, "COE"). The COE, or frequently referred to as made in effect, is classified by Verlegh and Steenkamp (1999) "*as a substantial factor in product evaluations*" (p.528). This effect can be defined as an influencer on a consumer's choices,

leading consumers to perceive a better or worse product, service, or brand quality, by recognising its origin (Agrawal and Kamakura, 1999). Consequently, the COE can be a distinct product feature as other product common attributes, like price. Broadly, in literature, researchers on the topic refer to that as a determinant variable in consumer behaviour, which considerably impacts consumer's evaluations (Tan and Farley, 1987).

As an effect dependent on the reputation of that country of origin, unique and singular country, the image may vary regarding the counterpart's perception, recipient of the foreign service or product. As Yelkur et al. (2006) mentioned, buyers "tend to exhibit 'national stereotyping', which is a biased way of thinking about people and products from a country" (p. 31). Subsequently, it is possible that different host countries of a specific product, produced in one particular country (or home country), can perceive that product's quality in different ways. Eventually, a product produced in Portugal, for instance, can have a positive COE in a country but a negative COE in another one. In this context is in the best interest that a company, when internationalising, considers its strategy, not a single effect due to its origin, but multiple COEs depending on the host or destiny countries that it is considering when exporting.

This research aims to explore the formation of the COE based on the image that the country possesses abroad. COE is dependent not only on the self-characteristics, such as natural resources, culture, economy, tradition but also on how foreigners perceive those characteristics, which make them contingent factors on the construction of the image of that country. So, understanding that phenomenon will require studying the different country perceptions of Portuguese image, the Portuguese products in general.

Therefore, the study will contribute to the country of origin ("COO") literature by giving a different approach, focused on other cues for the same country, instead of focusing on one foreign consumer country, as past research mainly concentrates (Chu et al., 2010, Koschate-Fischer et al., 2012). The current study looks to enhance the COO definition by assigning further relevance to the host country's perception of the country of origin and not a static COE, independent of the host country.

According to the exposed, this study aims to respond to the following question: Can the same product be differently impacted by the country-of-origin effect due to the consumer's characteristics, in particular nationality?

Moreover, Portugal lacks research on the influence of foreigner's perceptions towards Portugal products (Costa e Silva and Saraiva, 2016) giving place for this research to contribute to more information of the specific case of the "Made in Portugal" effect abroad, as well as comprehend the different perceptions of the label depending on the cultural distance to Portugal.

Therefore, the study contributes to the COE literature by giving a different approach, focused on other effects for the same country, providing the perceptions from more than one foreign country to the same country-of-origin, instead of focusing on one foreign consumer country, as past research mainly concentrates (Chu et al., 2010, Koschate-Fischer et al., 2012). The current research looks to enhance the country-of-origin definition by assigning further relevance to the host country's perception of the country-of-origin and not a static COE, independent of the host country.

Additionally, this study aims to provide to professionals that take strategic decisions valuable information on their internationalization endeavours, by giving them an additional factor to ponder when choosing the host country and strategizing the market entry format (Silva, 2014).

This research is composed of five chapters. After the introduction, the second chapter refers to the literature review, the third chapter provides the methodologies applied to respond to the hypotheses set at the end of the literature review, the fourth chapter presents and discusses the results obtained. Finally, the fifth chapter summarizes the conclusions of this study, as well as the limitations of the study and suggestions for future research.

Country-of-Origin Effect: origin and definitions

During the '60s, Schooler (1965) introduced the COE topic under the study "Product Bias in the Central American Common Market", which pointed out a bias created on product evaluations due to the COO (country-of-origin). Several researchers further analysed the cue on the COO, but a more in-depth and reviewed analysis of previous studies is made by Bilkey and Nes (1982). These authors concluded that the COE "indeed influence buyer perceptions of the products involved" (p. 94). This conclusion was several times reiterated by other authors when addressing the same subject (Verlegh and Steenkamp, 1999, Silva, 2014). The COE, repeatedly linked to the expression "made in [country of origin]" (Peterson and Jolibert, 1995), is referred to as the stereotypes of one's country towards another (Bilkey and Nes, 1982). For example, we perceive high-quality standards from Japanese electronic devices and German cars due to the stereotype about that country (Agrawal and Kamakura, 1999).

To analyse the impact of product evaluations due to the COO, one must first respond to what characterises the origin of that product or service. On the premises of the COO concept regarding a particular product, the production location was identified as the factor that mainly characterises the origin of a product (Bilkey and Nes, 1982). According to that reasoning, the COE is what people perceive of a product due to the location of its manufacture. The recent evolution of multinational companies with global value chains entirely changed the paradigm. The global value chains meant that a production process could be spread around the globe, from the raw material to the manufacturing process, followed by the moment of assembly, the process of commercialisation, which could be added with design.

In today's world, multinational companies distribute their value chains in different locations, which for the purpose of the COE research, turns the process of identifying an origin complex. Chao (1998) refers to the existence of the brand origin, the country of assembly, the country of design, among others, to identify those various dimensions of origin for the same product. According to Kim and Park (2017), the COO for a particular product can be either the country of manufacture, the country of design, the country of the brand, or even the corporate headquarters' country.

There is a wide variety of definitions that make up the COO construct in the literature. The consequences of each COE definitions' routes should not be ignored. In fact, several consequences may derive from specifying the dimension of a firm's COO, whether one considers the country of manufacture, the country of assembly or the country of design. Determining that dimension will enable the label of each company's origin. The current research defines COE as the consumer bias in evaluating a product due to its country of manufacture.

Contexts of COE

Another variable in place over the COE is what determines the cue which influences consumers' perceptions. The factors that influence those perceptions may include, as an example, the level of economic development (Schooler, 1971, d'Astous et al., 2008). If the consumer perceives a lower level of economic development associated with the country of origin of that product, it may also perceive a lower product quality due to that fact, as well as expect lower prices due to that matter (Lascu and Giese, 1996).

Another significant factor referred to in literature impacting the COE is familiarity. Familiarity or the impact of the knowledge that an individual possesses regarding a product, service, or country can play a role in the evaluation consumers give to products (Kiambi, 2017). Beyond that, Han (1989) speaks about two impactful topics in this matter: the halo and the summary effects. The halo effect refers to consumers' inference when they are not familiar with products made from a country, applying their perceptions concerning the country image to the products produced in that country. The summary effect, in contrast, indicates that those perceptions will influence consumers who are familiar with a product produced in a country by applying those perceptions to that product on the evaluation of country image (Han, 1989).

Despite all those concepts referred to here, not much is mentioned about the actual and impactful existence of cross-cultural perceptions, namely the reasoning behind different countries perceptions of the same country of origin. The topic is stated in some papers which highlight some differences in host countries perceptions – as Cattin et al. (1982) indicate different perceptions from French respondents and American respondents to the same product and respective origin. It is also referred to nationality as a key variable in COE studies in Johansson et al. (1985) research, which discovers

differences in American and Japanese respondents. In fact, some studies do show some differences between host countries to the same COO, but the comparison seems to be composed by a small number of destination countries, and nationality does not appear to be consistently included in multi-attribute studies during the last decades, as observable by the extensive literature review of (Durand, 2015) on COE. Interestingly, the characteristics of a country may not differ, but the perceptions of different countries to the same country do differ. In this context, the COE may not be the same regardless of the destination country, meaning that COE is a variable of the perceptual cues a host country has regarding a specific country of origin, as illustrated in graphic 1. In contrast, the COE is a bidirectional system, based on interactions between the country of origin and the host country, the receptor.

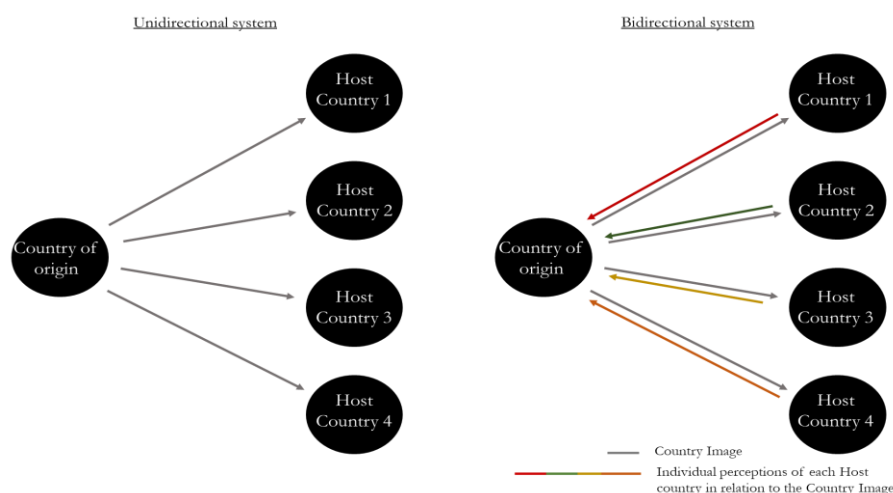


Figure 1. *Host Country and Country of Origin relations*

Source: author's conception

This research aims to support the assumption that the COE is effectively highly dependent on relations between the host country and the COO. COE is mainly the host country's perception concerning the country-of-origin, instead of being a unidirectional effect of the country of origin (independently of the host country).

In respect to the dimensions exposed under this chapter and the applicability of those dimensions as moderators to the COE of Portugal, as well as considering the objective of identifying the degree of bias from foreign consumers to Portuguese products being influenced by the image that those consumers have of Portugal, the following hypotheses were selected:

- **H1:** there is a positive correlation between the perceptions towards the country and the perceptions towards its products;
- **H2:** the correlation between the perceptions towards the country and the perceptions towards its products differs based on nationality;

- **H3:** sectors of enhanced international competitive advantage function as summary effects for the image of the country.

METHODOLOGY

A quantitative analysis was applied which obtains the information through a survey collecting data from different countries. The collection technique is characterised by a convenience sample, non-probabilistic, obtained in a snowball format. The data collection occurred between March and April 2021, and the data was collected through online Google forms. The questionnaire was designed in English and then translated to German, Polish, Italian, French, Spanish and Portuguese. To approach the respondents to participate in the study was used in social media (e.g., LinkedIn and Facebook) and the researcher's contacts with potential respondents through direct message and email.

The study led the respondent to share their opinion on the perceptions of the "made in Portugal" effect by evaluating the country image and the products images and understanding those perceptions for the specific case of Portuguese wine.

Country-of-Origin of Portugal

Beyond the lack of literature for the case of Portugal, the studies tend to focus on where Portugal benefits from a relative competitive advantage, which follows the structure proposed by (Dunning, 1980) on its OLI framework (Costa e Silva and Saraiva, 2016). An example of a study of the Portuguese case includes the research about the olive oil and tomato sectors, which Portugal denotes a significant competitive international advantage. Particularly, Silva (2014) concludes on the existence of an influence of the consumers' perceptions of the image of Portugal on the Portuguese olive oil and tomato.

Indeed, the study of the Portuguese COE is mostly impactful on sectors where Portugal already built a solid international reputation and that many national companies benefit from it, sectors like wine and footwear (Silva et al., 2018). This research then targets specifically the wine sector as one of the most internationally known Portuguese products.

Portuguese wine sector

In Portugal, there is not only the Port Wine, but the Madeira Wine, the green wine (only produced in the North of Portugal and part of Galicia, in Spain), and several other types. All this diversity composes the current exports of wine from Portugal. Today, not only the Port Wine sells from its origin, but different types do, as we see growing importance on Portuguese exports of these latter (Loureiro and Fernandes, 2011). Portuguese wine is sold worldwide, though some regions compose the vast majority of the exports of Portugal, such as France and the United States. France is a country

that produces high quantities of wine but is also a significant consumer, being in the first line of Portuguese wine exports. Portuguese wine is one of the most known areas where Portugal is most known worldwide, resulting from years of creating this image and reputation outside (Silva et al., 2018). Following other studies in Portuguese wine, this research aims to collect those positive evaluations of the wine made in the country and the expected correlation to the Portuguese image.

Questionnaire

The survey incorporates a 7-points Likert scale, varying from 1 (strongly disagree) to 7 (strongly agree). Respondents were faced with a group that evaluates the image of Portugal or the General Country Attributes ("GCA") scale, items used under the Country-of-Origin Scale proposed by Parameswaran and Pisharodi (1994) yet adapted and applied to the case of Portugal. Another group considered the perceptions from those different destination countries to general product attributes from Portugal. It was employed the General Product Attributes ("GPA") items used under the Country-of-Origin Scale, also proposed by Parameswaran and Pisharodi (1994). And a final group that made an adaption from dimensions identified by Roth and Romeo (1992) – (i) innovativeness, (ii) design, (iii) prestige and (iv) workmanship – and a study from Gil and Sánchez (1997).

RESULTS AND DISCUSSION

Overall, 571 answers were collected, though, 38 of them were respondents with Portuguese nationality, due to that factor, they were excluded from the sample. The total sample is then equivalent to 533, with ages between 18 and 76 ($M=31.41$, $SD=11.04$), 75% of the population between 18 and 35 years old. In terms of the respondents' citizenship, there were 68 different nationalities, where the majority were Brazilian (17%), followed by the British (9%) and the French and German with 8%.

The descriptive analysis applied to the General Country Attributes ($M=4.63$, $SD=1.08$) and General Product Attributes ($M=4.39$, $SD=1.14$) gave moderate mean results, that on a scale of 1 to 7, 4 is the middle term. The mean for Wine ($M=5.52$, $SD=1.33$) attributes indicates an average good perception of the Portuguese wine.

Exploratory and Confirmatory Factor Analysis

KMO and Bartlett's Test attributed significance values for all scales, and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was close and, in some cases, much higher than 0.8. Values in communalities did not suggest extracting any items. However, for both General Country Attributes scale, and General Product Attributes scale, the analysis split the items into two components. Under the General Country Attributes scale, the Principal Component Analysis divided the twelve items into

two components. Factor 1 is attributed to the economic facet (composed of items 5 to 10). The second being identified was the culture and people facet (composed of items 1 to 4, 11 and 12). To reduce the eleven items into components, exploratory factor analysis was made, resulting in two different factors. Factor 1 attributed to desirable product attributes (composed of items 1 to 6 and 8). The second factor is the distribution and promotional attributes (composed of items 7 and 9 to 11).

The confirmatory factor analysis attributed in the discriminant validity test, higher R correlations between the same components, verifying the validity of the model. Under the structural equation modelling to analyse the construct reliability and validity attributed high values for the alpha of Cronbach, CR and AVE, as shown in table 1.

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Familiarity	.796	.860	.554
GCA Factor 2 People Facet_	.859	.895	.589
GCA factor 1 Economic facet	.905	.927	.679
GPA factor 1 Desirable	.937	.949	.728
GPA factor 2 Distribution	.860	.905	.704
Wine	.950	.962	.835

Table 1 – Confirmatory Factor Analysis under the Structured Equation Model

Hypotheses tests

In terms of the correlation analysis made (Table 2), moderate positive correlations between General Product Attributes and the General Country Attributes, as well within the components inside these two constructs. Between these constructs, a strong positive correlation was identified ($p < 0.01$, $r = 0.708$), as well as moderate positive correlations between components of both constructs, with emphasis to GPA factor 1 desirable product attributes and GCA factor 2 culture and people facet with a positive moderate strong correlation ($p < 0.01$, $r = 0.695$).

Construct	GCA	GPA	GCA factor1	GCA factor2
GCA				
GPA	.708**			
GCA factor1 economic facet		.643**		
GCA factor2 culture people facet		.653**		
GPA factor1 desirable	.707**		.601**	.695**
GPA factor2 distribution	.567**		.582**	.454**

** $p < .01$

Table 2 - Correlation between General Country Attributes and General Product Attributes

The results show high levels of connection between the evaluation of individuals to the country image and the country's products, indicating the presence of COE or the presence of a bias on product evaluation due to a country image. This conclusion corroborates the literature on the topic (Bilkey and Nes, 1982). Particularly, this effect exists in the case of Portugal, which was also found in previous studies (Silva, 2014).

The existence of a strong correlation between the perceptions of the country image and the perceptions of the products was proved to be strong enough to ensure the presence of COE, suggesting that consumers are influenced by their perception of Portugal image on their evaluation of Portuguese products. And so, consumers worldwide take into consideration the “made in Portugal” associated with a product in their products’ evaluation. That indicates that *H1 – there is a positive correlation between the perceptions towards the country and the perceptions towards its products* – is supported, so the differences between nationalities can be tested.

Further correlations were made to identify relations between General Country Attributes and the Wine sector. It was identified moderate positive correlations with the General Country Attributes, with emphasis between Wine and GCA factor 2 of culture and people facet ($p < 0.01$, $r = 0.521$), as compared to the correlation between wine and the GCA factor 1 of economic facet ($p < 0.01$, $r = 0.389$). Additionally, an Independent Sample T-test (Table 3) was elaborated to identify significant differences between the respondents who had the experience of consuming the Portuguese products in analyses. Welsch’s test was applied, which means equal variances were not assumed. Significant differences were identified in the wine and GCA; respondents with experience in Portuguese wine scored higher on that product attributes. It was also found that Wine’ experienced consumers pointed higher on General Country Attributes.

Portuguese Sectors	Have you ever drunk Portuguese wine?		t student	Sig
	Yes N=440	No N=93		
Wine	5.80	4.19	10.932	.00
GCA	4.71	4.22	4.000	.00

Table 3 - Respondents experience with each of the products in analysis

Results suggest that the image of the country is influencing the attributes of the product. Interestingly, the experience familiarity, for the case of wine made the respondent also attribute greater importance to the image of Portugal, so this product also plays as a summary effect on the image of Portugal, corroborating what was exposed by Ahmed and d'Astous (2008) and Han (1989). In this context, the results reveal that an experience with a country's product influences the consumer to use that perception as a summary of that product's origin attributes.

These results confirm *H3: sectors of enhanced international competitive advantage function as summary effects for the image of the country*.

To collect the differences between different nationalities' perceptions, countries were grouped based on the Globe Project clusters (similar cultural countries) (House et al., 2010). Five groups were identified: (i) Latin Europe (composed of France, Italy, Israel and Spain), (ii) Latin America (composed of Brazil, Bolivia, Colombia, El Salvador, Mexico and Venezuela), (iii) Anglo (composed of Australia,

Canada, Ireland, New Zealand, South Africa, United Kingdom and the United States) (iv) Germanic Europe (composed of Austria, Germany, Netherlands and Switzerland), and (v) Eastern Europe (composed of Georgia, Greece, Hungary, Kazakhstan, Poland, Russia Federation and Slovenia). A sixth group was created composed of Portugal's ex-colonies, which maintain a smaller psychic distance from Portugal - PALOP (Portuguese-speaking African Countries - Angola, Cape Verde, Mozambique and Sao Tome and Principe). Finally, a seventh group was created composed of all countries without direct bounding with Portugal, either commercially or political.

To analyse differences between these country groups with regards to the General Country Attributes and General Product Attributes, an One-Way ANOVA test was applied (Table 4). Significant differences were found in the GCA factor 1 economic facet between Latin America ($M=4.27$, $SD=1.13$) and Germanic Europe ($M=3.67$, $SD=1.28$) and between this latter one and PALOP ($M=4.41$, $SD=1.38$). It was also identified statistically significant differences for factor 2 in respect to the Portuguese culture and people facet, only between Latin Europe ($M=5.42$, $SD=1.07$) and PALOP ($M=4.41$, $SD=1.48$).

Dimensions	Latin Europe	Latin America	Anglo	Germanic Europe	PALOP	Eastern Europe	Other	F	Sig
	N=122	N=103	N=85	N=57	N=47	N=37	N=82		
GCA	4.79	4.65	4.68	4.32	4.41	4.59	4.30	1.988	.07
GCA factor 1 economic facet	4.15	4.27	4.25	3.67	4.41	4.13	4.16	2.223	.04
GCA factor 2 culture people facet	5.42	5.04	5.10	4.98	4.41	5.14	5.10	4.596	.00

Table 4 - Means comparison for General Country Attributes based on country grouping

To understand the real impact of nationality on COE, a Multigroup analysis was made (table 5) to comprehend if there were country group differences under the relation between the country image and the product image, i.e., under the country-of-origin effect. It was taking into consideration the results of the Partial Least Squares Multi-Group Analysis (PLS-MGA) which is a non-parametric test, a more conservative approach to group differences path coefficients (Henseler et al., 2009). The test attributed statistically significant differences for some paired comparisons for the components of both country image and product image constructs. Those were identified on the comparisons between Latin Europe and PALOP, whereas for PALOP the relation is stronger between GCA factor 1 economic facet and GPA factor 1 desirable product attributes (-0.406) and GCA factor 1 economic facet and GPA factor 2 distribution and promotional attributes (-0.532), but weaker when considering GCA factor 2 people and culture facet. The same significant differences are identified in the same way between Anglo and PALOP cultural groups. Similar differences but only significant for GCA factor 1 economic facet and GPA factor 2 distribution and promotional attributes were identified between Latin America and PALOP (-0.445). Under the differences between GCA factor 2 people and culture

facet and GPA factor 1 desirable product attributes, the connection is stronger for Anglo when compared to Latin America and Eastern Europe.

Country Group differences (2x2)	GCA_f1 - GPA_f1		GCA_f1 - GPA_f2		GCA_f2 - GPA_f1		GCA_f2 - GPA_f2	
	Dif.	Sig.	Dif.	Sig.	Dif.	Sig.	Dif.	Sig.
Latin Europe vs Germanic Europe	.016	.879	-.400	.033	-.085	.549	.273	.107
Latin Europe vs PALOP	-.406	.027	-.532	.012	.287	.040	.375	.043
Latin Europe vs Eastern Europe	-.491	.030	.045	.851	.325	.081	-.142	.535
Latin Europe vs Other	-.082	.555	-.308	.035	-.044	.701	.185	.291
Latin America vs Anglo	.341	.074	.035	.863	-.342	.034	-.197	.259
Latin America vs PALOP	-.181	.303	-.445	.027	.073	.660	.264	.187
Anglo vs PALOP	-.522	.021	-.481	.023	.415	.019	.462	.025
Anglo vs Eastern Europe	-.608	.020	.096	.761	.453	.047	-.055	.798
PALOP vs Other	.324	.066	.225	.175	-.330	.029	-.190	.303

Table 5 – Multigroup analysis: differences between country groups on the relation between General Country Attributes and General Product Attributes

In this context and by grouping the nationalities between cultural similarities, PALOP citizens, as well as Latin America citizens, attribute greater value to the economic image of Portugal, which means associating Portugal with high standards of living, high level of economic development and efficient public institutions. Moreover, Latin Europe citizens appear to see Portugal as a place of good people and culture, potentially to be part of the same cultural group and due to the geographic proximity, whereas the PALOP citizens indicate to have relatively more minor esteem to Portuguese people and culture. In what concerns the image of products made in Portugal, PALOP and Latin America citizens, when compared to other cultures, appear to acknowledge good accessibility of the products, relevant presence worldwide and significant technological advancement.

The existence of differences between cultural groups implies that nationality plays a moderator effect for one-to-one comparisons, weakening or strengthening the made in effect. Consumers characteristics, in particular, nationality, lead to more or less permeability to the COE. These findings corroborate what Johansson et al. (1985) and Semaan et al. (2019) indicated in their study, that different nationalities rate a country's products differently, but as this research, there is no tendency to change the correlation path between country image and product image. This means that the host countries' perceptions impact Portugal's COE, but do not change the overall positive connotation.

These results confirm *H2: the correlation between the perceptions towards the country and the perceptions towards its products differs based on nationality.*

THEORETICAL AND MANAGERIAL IMPLICATIONS

As anticipated, this research contributes to the COE concept by emphasising the importance of the host country consumer, the recipient of the products, and the relation between the country image and the country's product image. Consumers' nationality can play a moderator variable on the COE, impacting the permeability of the effect. It is also exposed that the image of a country is decomposed into two distinct factors that differently influence the strength of the COE. Countries with similar levels of economic development to the country-of-origin recognise less quality to the attributes related to the economy and the institutions of that country. Whereas when considering the people and culture facet of the image of the country, the developed countries recognise the higher quality of these attributes which strengthens the influence of COE on those consumers through that dimension. Indeed, different cultures mean different country images evaluations and different impacts of these into that country's products. In that context, stereotyped perceptions are essential when defining the COE, once the COE is not a steady attribute, but rather a volatile phenomenon moderated by the counterpart, recipient of the product of that country-of-origin.

Managers should take advantage of the positive image of Portugal to sell their products. This is confirmed across types of sectors as something that benefits the evaluation of the products. As well as differentiate their actions to emphasise different dimensions of the COO depending on the destination country. Managers should also take into consideration the impact of experience familiarity as a way to increase the score of evaluation of their products, and in some cases, proven in this study to be in the wine sector, to also be a distinctive factor for better evaluations of the country. So, in this case, those products produce a summary effect that can be used to benefit the overall image of Portugal.

Regarding limitations, we must note that the country clusters were considered homogeneous, but Portugal has more intense commercial relations to some. This difference was not considered. Another limitation is that some clusters (namely the PALOPS) have much more respondents from only one country.

Future research could complement this analysis by studying the COE of Portugal but considering the consumer's buying intention, instead of the consumer's evaluation of the product. New research on the topic could also look to identify differences in annual income to the effect on the perception of some Portuguese products, as it could be a differential factor to capture wealthier individuals that have the purchasing power to acquire more expensive items.

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EXTENDING THE CONCEPT OF PESTER POWER BY INVESTIGATING YOUNG ADULTS AND THEIR PARENTS: THE CASE OF LIFE LONG PESTERS IN BALKANS

Damkou, Stefania¹; Kapoulas, Alexandros²

¹Business Administration and Economics Department, The University of Sheffield International Faculty – CITY College, Thessaloniki, Greece

²Business Administration and Economics Department, CITY College, University of York Europe Campus, Thessaloniki, Greece and South East European Research Centre, SEERC, Thessaloniki, Greece

ABSTRACT

The paper reviews the existing literature in respect with the “Pester Power” and the possible extension to young adults, from 18 years old and above, who are using the internet and its functions on a daily basis and may contribute to a kind of an adult “Pestering Power”. The researchers aim at uncovering the feelings and attitudes of the young adults and their parents through the use of qualitative research method. Data were collected through interviews and open-ended questionnaires. The paper sheds a glimpse of further light to the existing knowledge regarding the above-mentioned topic by collecting insights from young adults and parents from Balkan countries. Preliminary findings indicate that young adults in the Balkans are considered as “lifelong Pestors” due to the fact that most of the participants support that they cover their needs and wants by being financially supported by their parents. Lastly findings revealed parents’ willingness towards providing continuous financial support to their children.

Keywords: Pester Power, Young adults, Parents, Balkan countries

INTRODUCTION

The aim of this investigation is to uncover thoughts and emotions of young adults as well as their parents towards the continuation of the behavior called “Pester Power”. Therefore, the objectives of the specific study are the following;

RO1: explore perceptions, attitudes, feelings, and emotions of young adults towards the continuation of the behavior called “Pester Power”.

RO2: uncover perceptions, attitudes, feelings, and emotions of parents towards the continuation of the behavior called “Pester Power”.

There are different studies (Preston, 2016; Hota and Bartsch, 2019), dealing with marketing activities and the reasons why children are considered as consumers by marketers. Simultaneously, there are

several research papers discussing “Pester Power” which is the term that describes the process of how children manage to buy what they want. However, it is found that young adults and their role in the family decision-making and buying processes can be as considered as an under-researched area. In a modern and continuously changing world, it is observed that marketers strive to break customers down into categories by investigating different generations, lifestyles, cultures as well as their needs and wants and by identifying motivators that lead individuals at buying new products or services. It is a fact that children manage to buy products and services by being financed by their parents. However, young adults are separated into three different categories of independence. The first group refers to those who are financially independent, the second classification deals with young adults who are semi-independent and the third category describes young adults who are financially dependent on their parents.

The internet has been widely used by both marketers and customers. Marketers can be benefited from the use of the internet by attracting and reaching a wider group of people with low costs and at the same time receive feedback without spending resources such as much time and money. Regarding consumers, the latest generations are integrally connected with the digital world and at the same time, they are affected by the different types of advertisements that are uploaded there, by influencers, or even by the acquired information regarding their peers who share personal experiences. Thus, in order to purchase the needed or wanted products and services, it is required to collect the required amount of money. The observation of the above-discussed background exposed to the researchers an under-researched area in respect with uncovering the thoughts and emotions of young adults and their parents towards the continuation of the behavior called “Pester Power”.

OBJECTIVES OF THE STUDY

The purpose of this investigation was to firstly explore perceptions, attitudes, feelings, and emotions of young adults towards the continuation of the behavior called “Pester Power” that is implemented in the earlier stages of their life. The study goes further to uncover perceptions, attitudes, feelings, and emotions of parents towards the continuation of the behavior called “Pester Power” that is implemented in the earlier stages of their children’s life.

RELEVANT LITERATURE

Pester Power

For a research that aims at understanding potential patterns regarding the behavior of young adults, it is critically important to examine existing studies from similar patterns during the earlier stages of

people's lives. This is due to the fact that many or parts of the characteristics of children's behavior remain the same while reaching adulthood. Therefore, for the specific study, it is of great importance to figure out the origin of the behavior of young adults who may continue asking for money from their parents in order to purchase products or services. Anitha and Mohan (2016), have defined and scrutinized the term "Pester Power" or "the nag factor" (Godhani et al., 2012). The previously mentioned terms refer to the skill of children to buy advertised products or services by pressuring and convincing their parents. Thus, "Pester Power" aims at explaining the influence of children towards their parents during the decision-making and buying processes of their family (Page et al., 2019). The previously discussed term is considered as a negative behavior (Gram and Grønhøj, 2016). However, according to Vel el al. (2016), "Pester Power" can be "used as a positive marketing tool" (p.1).

People Involved in the Buying Process

According to Verma and Kapoor (2003), different people are involved in the buying process. More precisely, the decision-making process, as well as the buying process, consist of the initiator, the influencer, the decider, the buyer, and the user (Singh and Singh, 2014). Sharma and Sonwaney (2014) have stated that through different media, "children are being exposed to adult-oriented information and appear adept at processing that information" (p. 39). Thus, it is obvious that children during the family buying process adopt many of the different roles that were previously mentioned. Bamfo et al., (2019), indicate that the different roles that children may adopt during the decision-making process may vary because of the different product categories, while at the same time the roles change during the different stages of the buying process. For instance, Ahmed (2019) has stated that children frequently adopt the role of the initiator. In addition, it can be argued that kids express their willingness to buy a product or service and become "pesters" due to the fact that they are exposed to advertisements. Indeed marketers are targeting children because they have the power to initiate a purchase and convince their parents to buy the targeted product for them by adopting the roles that were previously presented.

Consumer Socialization of Children

Moreover, it is found that children present a decent level of brand consciousness from a very young age (Verdoodt and Lievens, 2017). According to Anitha and Mohan (2016), "consumer socialization of children" is a phrase that aims at describing the different procedures through which children obtain information and formulate their own opinion as consumers towards the offered products or services. Initially, one of the above-mentioned processes refers to the influence by peers. Additionally, according to Thyne et al. (2019), retailers attract children by executing different promotional strategies while at the same time advertisers attract kids through television advertisements (Bamfo et al., 2019) which are

included in the traditional methods of advertising. The digital world and more specifically, the relationship between online media and children, has provided marketers with the opportunity to reach kids there. More specifically, nowadays, children are familiar with the use of the internet from a very young age. Thus, it is a fact that online advergames on well-known websites can easily attract children from young ages (Ismail and Nasidi, 2018). Furthermore, it appears that children use different social media platforms such as “Youtube” and “Instagram” from young ages (Jaakkola, 2020). Consequently, as it is found, marketers reach kids through the above-mentioned social media networks by either creating advertisements or through collaborations with famous influencers (Tan et al., 2018).

The Role of Young Adults in the Family Buying Process

The outcome of the above-mentioned facts is the increase in the appearance of the phenomenon called “Pester Power”. Thus, it is of great importance to examine and understand the behavior of young adults regarding their role in the buying process when reaching adulthood. It is a fact that the needs and wants of young adults for products and services change. As it was previously mentioned, it is interesting to examine their role as young adults in the family buying process. More specifically, it could be argued that young adults, continue having similar behavioral characteristics to those from when they were children. Thus, one of those characteristics may refer to the continuation of pressuring their parents in order to buy a product or service for them or even affect the purchases of the family in general. In order to either reject or accept the previously mentioned statement, it is crucial to conduct research.

Social Media Influencers (SMIs)

Brands attempt to meet the above-mentioned goal by either executing direct advertising or through collaborations with influencers. Khamis et al. (2017), have explored the tremendous rise of (SMIs). The main aim of SMIs is to spread positive Word of Mouth (WOM) for the advertised products, services, or brands. Companies try to collaborate with influencers who have a large network of followers in order to ensure that the product or the brand is going to be promoted to a wide network size. At the same time, it is argued that the increased number of followers refers to many individuals who trust the specific influencer. Consequently, it is observed that the opinions and the reviews of social media influencers, affect people’s purchases. However, various studies (Dhanesh and Duthler, 2019; Breves et al., 2019) have dealt with social media influencers and the potential negative relationships that may arise between SMIs and consumers. More specifically, credibility and trustworthiness are considered as the main issues that emerge.

Exposure through Personal Accounts

However, it is not only marketers that target people through online activities. Nowadays, people tend

to share personal information through their accounts on social media such as their Facebook or Instagram profiles (Hajli and Lin, 2016; Ghaisani et al., 2017). Furthermore, young adults upload pictures of the products that they recently bought on their social media accounts in order to present their new purchases or define their lifestyle and their economic status. The illustrated products can be either low priced or even expensive products such as a mobile phone or a car. At the same time, it is observed that it is easier for them to share such information by using their accounts rather than through face-to-face communication. Thus, it is thought that sharing information about owned products or services can influence others to purchase the same or similar products. In general, it is found that peers and their online activity influence someone's buying behavior (Copeland and Zhao, 2020). Therefore, young adults that everyday explore new advertisements, get bombarded with new trends, and receive visual or written information about their peers through social media and the internet in general, have the want to own new products and services.

Categories of Independence

The term "independence" describes the situation where an adult can decide on his or her own during decision-making processes (Serido and Deenanath, 2016). Most of the people relate the status of being independent with someone's economic position (Bea and Yi, 2019). Moreover, economic autonomy gives people the opportunity to afford to live on their own without sharing their expenses with other people and more specifically with their family (Hill et al., 2017). Additionally, having an independent budget leads individuals in fulfilling his or her specific needs and wants.

Pradipto et al. (2016), have identified two different classifications of independence. The first category refers to the status of people who are entirely dependent on their families. On the contrary, "independence" can be translated as the situation where an individual is economically autonomous due to the fact that he or she is employed, and receives a tolerable income. The last category is positioned between the two above discussed classifications. More precisely, the groups of people who are "semi-independent" adopt the following characteristics. To illustrate this kind of people, it is essential to provide an example. Those who are employed and receive a monthly income, but simultaneously live with their parents can be considered as semi-independent individuals. An individual's independence can be affected by different factors such as the economic status of a country as well as the cultural capital of a place (Xiao et al., 2014; Hwang and Kim, 2016).

The previously discussed statement and factors have led to the identification and the explanation of different perspectives towards the independence of young adults in different countries and cultures. More specifically, several studies (Biggart and Kovacheva, 2006; Cameron et al., 2018) have found that in the United Kingdom, young adults become economically independent during the early stages of their lives. On the contrary, countries that belong to southern Europe such as Albania, Greece, and

Serbia embody a more traditional role. This is due to the fact that the transition towards independence is considered as a family project. More precisely, family support is an ongoing process within the families in the above-mentioned part of Europe. Lastly, according to Biggart and Kovacheva (2006), in Bulgaria, it is an “accepted norm for parents to provide as much support as they can to their adult children” (p. 58).

Gap Identification

Fingerman (2016), has discussed the relationship between parents and children in Western cultures. In the above-mentioned study, it is stated that “parents today provide dramatically more support to their grown children than they received from their own parents at a similar age” (p. 4). The same study attempts to scrutinize the cultural differences and governmental actions that lead to different occasions in which parents provide financial support to young adults. For instance, between the 1950s and 1960s young adults from Western cultures at the age of 20 years were supposed to leave their parental home. However, nowadays different reasons define the ability of young adults to establish residential autonomy. Such reasons are “a) the availability of affordable rental housing; (b) government policies (i.e. social welfare) assisting young adults, as opposed to their depending solely on parental support; (c) long-term stable employment in young adulthood; and (d) cultural preferences for co-residence” (Fingerman, 2016, p.3). Indeed, northern European countries (including the United Kingdom), have established governmental funding sources such as student loans (Sokolovska et al, 2019). On the other hand, Southern European countries have less governmental assistance and thus, parents are supposed to contribute financially in order to support their children.

Matuszewska (2017), has examined the influence of young adults that belong to generation X towards the buying decisions of the parents. There are different reasons why the author has decided to propose the implementation of further research in a wider sample. One of them focuses on the fact that the sample of the research regarding the young adults was based on one generation. Serido et al. (2015), have examined the financial behavior of the participants by uncovering their perceptions. However, they propose that potential research can triangulate the outcomes by understanding the opinions of those who provide financial support, such as the parents. It is worth mentioning, that Jorgensen et al. (2017) who have proposed the examination of a wider geographic sample, implemented the study by investigating people from the following origin groups; 75% of the participants were White or Caucasian, 17% African American, 2% Hispanic and the remaining (2%) were Asian American.

METHODOLOGY

Research Design

The purpose of the following research was to uncover and investigate perceptions, attitudes, and feelings of young adults and their parents towards the continuation of the behavior called “Pester Power”. Qualitative Research approach was deemed as appropriate to explore under-researched areas and new phenomena so as to understand and attempt to explain the forces that shape them (Kapoulas and Mitic, 2012).

Data Collection

For the specific study, two of the available techniques of the qualitative approach were utilized. More specifically, semi-structured interviews were implemented, while at the same time, open-ended questionnaires were distributed to the participants. The open-ended questionnaires were distributed to 50 young adults from countries that belong to the Balkan region and the main aim was to obtain a better understanding towards the phenomenon of interest. Simultaneously, 10 young adults were interviewed in order for the researchers to achieve having more immediate communication with the contributors. Additionally, the main goal of interviewing parents of young adults was to acquire information from the parents towards the continuation of the investigated behavior of their children.

Data Analysis

Thematic Analysis (TA) and Constant Comparison Techniques (CCTs) were used to analyse the findings of the specific study. The utilization of TA focuses on discovering similar themes, while the development of theories was accomplished by applying CCTs.

DISCUSSION OF FINDINGS

Pester Power

In order to meet the first objective and uncover perceptions of young adults from Balkan families towards the continuation of “Pester Power” after reaching adulthood, it was critically important to investigate their opinion regarding the behaviour in the earliest stages of their lives. Simultaneously, it was crucial to discover the attitudes of the parents in order to meet the second objective. The analysis of the data revealed that most of the respondents agree with the definition that Page et al (2019) gave, by confirming that during the early stages of their lives they were asking for products from their parents. More specifically, according to Huang et al., (2016) children exert such power mostly when they want to buy toys or unhealthy food. Indeed, the participants who contributed to the study have indicated the above-mentioned products as the main reasons why “Pester Power” was exerted. At the same time,

their reactions towards a negative response from their parents were unfavourable (getting angry, acting sad, and complaining) and such examples are identified in the theories that describe persuasive and emotional pestering (Anitha and Mohan 2016; Christino et al., 2019). On the contrary, parents disagree with young adults. The above-mentioned conclusion was established due to the fact that most of them conclude to the fact that “Pester Power” is mostly exerted during the period of adolescence and not during the early stages of their children’s lives.

At this point, it is worth mentioning that it could be argued that children adopt many of the roles that were presented in the relevant literature (Singh and Singh, 2014). More specifically, as it is described in the literature review, according to Ahmed (2019), most of the time children adopt the role of the “initiator”. Undoubtedly, the fact that during the data collection process the participants uncovered that “Pester Power” was exerted by them in the early stages of their lives, supports the adoption of the specific role. On the other hand, it was discovered that parents can recall circumstances in which traditional and digital marketing activities have led them at buying something for their children. Therefore, it could be argued that during the above-mentioned events, children were acting as “influencers”, one of the roles that were identified by Singh and Singh (2014).

Financial Support

The relevant literature revealed that the process towards financial independence for young adults in the United Kingdom, is a procedure that takes place during the early stages of adulthood (Biggart and Kovacheva 2006; Cameron et al., 2018). On the other hand, the literature review uncovered that for young adults in southern Europe, family support is considered as an ongoing project. By taking into consideration the insights that were gathered during the data collection process, it could be argued that both young adults as well as parents are aware of the existence of such differences in countries worldwide. After analysing the responses that were given by both young adults as well as parents, it is uncovered that young adults and parents agree with the relevant theory. More specifically, according to the participants the above-mentioned differences are integrally connected with the culture of each country, the economic status of the families and the country, as well as the family ties. Furthermore, the examination of the responses that were collected during the execution of the particular survey, revealed that indeed, Balkan families focus on supporting financially their children during the different stages of their lives. The above-mentioned conclusion was drawn by taking into consideration the insights that were provided from both parties (young adults and parents).

The different categories of independence were presented and discussed in the literature review. After examining the collected data, it is observed that indeed, all the different levels of independence are identified in the given responses. More specifically, both groups of participants have indicated that there are people who are entirely independent, others who are semi-independent and young adults

who are completely supported by their parents. The combination of the demographics and the quotes regarding financial support uncovered the following groups. Initially, there are students who are completely dependent on their parents, young adults who have a part-time job during their studies, while at the same time it is found that several people are financially independent. At this point, it is worth mentioning that on some occasions, even young adults who have reached the level of financial independence, are supported by their parents. The above-mentioned statement is also supported by parents who revealed that their willingness to support their children exists during the different stages of their children's life.

Buying Process

In the literature review the people who may initiate or influence a purchase were identified. After taking into consideration the responses that were given by parents regarding their buying process as young adults, the existence of similarities and differences was uncovered. More specifically, parents support that their friends were influencing their decision-making process. Despite the fact that the existing literature supports the above-mentioned fact, it is discovered that the media through which people are influenced have changed. According to Copeland and Zhao (2020), nowadays peers influence each other through their online activity on social media platforms. At the same time, the fourth step of the buying process refers to the actual purchase of the product or service. According to parents' experiences as young adults, the above-mentioned stage was taking place in physical stores, whereas today's marketplace consists of physical and online stores. Consequently, after comparing the responses of parents and the existing academic background, it is observed that technology is considered as the predominant difference between the buying processes of the generational cohorts.

Motives

It is a fact that for marketers, motives are essential because they guide the responses of individuals towards their needs and wants. Consequently, it is critically important to identify the motives in order to establish relevant marketing activities. At the same time, motives create needs and wants, and therefore, young adults attempt to fulfil them by being financially supported by their parents. The analysis of data revealed an overall agreement between the young adults and the parents. Moreover, it is uncovered that both parties confirm that friends are considered as a motive that influences the purchases of an individual. Thus, it can be argued that both young adults as well as parents agree with the literature review and more specifically with Copeland and Zhao (2020), who have discussed the influence by peers. More specifically, friends guide the needs and wants of individuals because of the high level of trust as well as the common interests that are identified between peers.

Concerning social media celebrities, it is observed that there is a number of young adults who confirm the theory by mentioning that influencers act as motives because they create needs and wants. Hence, influencers affect their purchases. Furthermore, it is observed that parents have identified the great impact that influencers and their activities have on their children. On the contrary, it is noteworthy that many young adults stated that influencers do not affect their needs and wants because of concerns regarding the level of credibility and honesty. The above-mentioned statement confirms the negative impact that was investigated by Breves et al (2019). Therefore, both brands as well as influencers need to be aware of the potential adverse effects because such outcomes harm the effectiveness of the marketing activities.

Table 1 points out specific key responses that were given while collecting data and support the above discussed findings. Referring to the "ID#" that can be found in table 1, "R" indicates the responses that were given by young adults, while "P" specifies parents' point of view.

ID#	Response	Subject
R20	"Yes, many times when I wanted a toy a lot I was trying to convince my parents to buy it for me."	Pester Power
R19	My reaction when my parents were not buying me what I was asking for, was negative. More specifically I was crying, sulking, or getting angry and yelling."	Pester Power
P7	"At the age of 13-14 their demands were increased. My daughter asked for a mobile phone and she had her own preferences regarding clothes."	Pester Power
R12	"I am partly financially supported by my parents since my income from my job is very low and I still live in my parents' house."	Financial Support
P5	"Our oldest daughter is working but we also support her. The younger one is still a student so she relies on me and her mother"	Financial Support
R6	"[...] For example in Balkan countries it's more likely for a young adult to be financially aided by their parents in comparison to Western countries [...]"	Financial Support
P8	" Some of the factors that affect the differences in family support between different countries are; culture, economic status of the country, family ties."	Differences on Financial Support
P4	"[...]If I wanted something I had to go to specific stores. Now, the approach of my children is totally different. They only go to stores when they are not sure about what they want to buy, but generally, what they do is that they go online, they search by visiting online stores, they compare prices and characteristics and they buy online. Sometimes they combine online and offline shopping. For instance, if my daughter wants to buy a dress she will search online and she will go to the physical store[...]"	Buying Process
R41	"Definitely, if your social circle is open to spending money on luxury goods such as clothes and going out etc you will be more keen on keeping up with this lifestyle[...]"	Motives
P8	[...] especially girls are easily 'jealous' when it comes to their friends' clothes, accessories, etc."	Motives

Table 1: Collected Data

CONCLUSION

The purpose of this study was to uncover perceptions, thoughts, and attitudes of young adults in the Balkans and their parents towards the continuation of the concept called "Pester Power". Overall, the

specific paper endorsed the research objectives that were defined and shed a glimpse of further light to the existing literature.

The combination of the data that were collected from the interviews that were implemented and the collected questionnaires uncovered that young adults in the Balkans confirm that “Pester Power” is a behavior that is adopted by children in the early stages of their lives. Furthermore, despite the fact that according to the existing literature, this is not the case in other regions, it appears that in Balkan countries, most of the participants are either partially or completely dependent on their parents. More specifically, their needs and wants are covered because of the financial support that is provided by their parents. In addition to this, independent young adults revealed that even for them, family support is a process that occurs on some occasions. The observation of the responses along with the demographical information of the young adults uncovered the existence of “lifelong Pestors” who manage to buy products and services by being financed by their parents. However, it is worth mentioning that young adults aim at becoming financially independent in order to cover their needs and wants and at the same time help their parents. The increase of the needs and wants of young adults derives mostly from the influence by their peers, from the content uploaded on social media by them, while at the same time it appears that in some occasions social media celebrities affect their demands.

On the contrary, parents indicated that during the early stages of their children’s lives, their demands were not increased. More specifically, according to the parents, the term “Pester Power” describes the behavior of their children as adolescents. Regarding financial support, some parents support that their children manage to buy what they need and want through the monthly salaries that they receive while working. On the other hand, it is confirmed by parents that, during their studies, young adults are financially supported by them. The responses of the parents revealed their willingness to provide continuous financial support to their children despite the level of independence that is reached.

In conclusion, the existence of “lifelong Pestors” in the Balkans is a concept that derives from both young adults as well as the continuous financial support that is provided by their parents. Our study revealed that there are differences in Balkan countries that mainly may stem from the cultural and societal expectations when it comes to the parents’ role of support and upbringing of their children that goes beyond the traditional pester power that mainly is significantly reduced in the other western and northern cultures and societies. One could argue that in Balkans the pestering power of children is continuing to young adulthood pestering. These findings pose certain opportunities and challenges to marketers as they may have to reconsider their strategies and tactics when it comes to promoting and approaching their products and services to Balkan young adults. Nevertheless, due to the nature of the limited qualitative sample further studies are required in this area to confirm these findings.

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CAUSE RELATED MARKETING IN PERIODS OF UNPRECEDENTED DISASTERS: ECONOMIC CRISIS AND COVID-19 OUTBREAK

Demetriou, Marlen

University of Nicosia, Nicosia Cyprus

ABSTRACT

This research paper sheds light on the mutual benefits of a long lasting Social Partnership between a non-profit Organization (The Cyprus Anti-Cancer Society) and a corporation (Lidl Cyprus) which started just after the Financial Haircut' of 2013 in Cyprus until today when the island is facing the negative consequences of the Covid-19 Outbreak.

An exploratory qualitative research method is used with three in-depth interviews: the President of the Board, the Communication and PR manager of the Cyprus Anti-Cancer Society and the Team Manager of Communications at Lidl Cyprus.

According to the research findings, since 2013 Lidl, despite the devastating Economic Condition of Cyprus due to the unexpected 'Financial Haircut' of all deposits above 100000 Euro of the two biggest Banks in Cyprus, runs a successful Cause Related Program with the Cyprus Anti-Cancer Society. This program continues even today when the island is facing all negative Economic and Social consequences of the COVID-19 Outbreak. This CRM strategy has been highly recognized not only by the Cyprus Anti-Cancer Society, the Cancer Patients and their Families but also by the potential and actual customers of Lidl Cyprus, its employees, suppliers and the society in general.

The above-mentioned findings may be a source of inspiration to companies in Cyprus and abroad to initiate innovative Cause Related Programs for the benefit of the non-profit Organizations and the humanity in general, while enhancing their brand Image and long-term profitability.

Keywords: Cause Related Marketing (CRM), Corporate Social Responsibility(CSR), Cyprus Anti-Cancer Society (CAS), Lidl-Cyprus, Economic Crisis, Financial Haircut. Covid-19.

1. INTRODUCTION

The purpose of this Article is to examine the positive impact of the Corporate Social Responsibility Orientation of Lidl Cyprus and more specifically the long-lasting Cause Related Marketing Program of Lidl Cyprus with the Cyprus Anti-Cancer Society for the cancer patients and their families, the Cyprus Society and the Brand Image of the corporation. Qualitative Research methodology was used with three in-depth interviews-The first interview was with the President of the Board of the Cyprus

Anti-Cancer Society, the second one with the Communication and PR Manager of the Society and the third interview was with the Team Manager of Communication of Lidl Cyprus. All three interviews, which took place during the period of February 2021 to April 2021, were aiming to examine the nature of Lidl's Cause Related Marketing Program and its impact on the Cyprus Anti-Cancer Society and the people of Cyprus along with the company's brand image and reputation, as well as employee satisfaction and retention. The Cyprus Anti-Cancer Society is a non-Profit charity Organization which is offering for Free Palliative Care to all Cancer Patients in Cyprus, and their families. It is mostly financially supported by the Cypriot Citizens and Local Corporations but just after the Financial Haircut in March 2013 in Cyprus (Cyprus Profile 2014) most of the donors were unable to continue supporting the Cause. Lidl Cyprus, despite the unstable Economic Situation in the island, introduced a Dynamic CSR program aiming to support the Anti-Cancer Society so as to continue offering its valuable services to the cancer patients in the island.

The impact of Lidl's decision to support the Anti-Cancer Society on the corporation's reputation, brand image, sales and profits as well as employee retention and engagement was examined in this research paper along with the impact of those programs on the survival of the Anti-Cancer Society.

2.1 Corporate Social Responsibility

Since global competition is increasing, more and more companies try to gain a competitive advantage over others through various sources. Therefore, they have connected their philanthropic activities to business strategy, calling it strategic philanthropy (Cranenburgh and Arenas, 2014). Philanthropic activities that benefit and create value for the society as well as improve a company's business performance can be sustainable in the long term, thus they must be managed professionally (Bruch and Walter, 2005). Rey-Garcia et al. (2018) support that studies conducted have shown that corporate philanthropy can influence favorably consumers' attitudes and beliefs towards companies and products, thus provoking their loyalty to the products and services of the companies. Companies engaging in philanthropic activities intend to create social value for communities and address significant social needs as well as benefit themselves and create value for their businesses through enhancing their reputation, their competences and their employee morale (Urriolagoitia and Vernis, 2010). Several authors support that corporate philanthropy should be seen as a strategic investment that can offer many advantages. Saiia, Carroll and Buchholtz (2003) have conducted a survey on corporate philanthropy among managers of U.S. firms, and they have ascertained that well-organized corporate philanthropic activities are implemented in a way that benefit the society and help to better position the company. A lot of companies who share the view that strategic philanthropy is an investment that can offer to them a competitive advantage try to incorporate it in a more multi-stakeholder dimension strategy called Corporate Social Responsibility (CSR). Corporate Social

Responsibility involves transparent business practices that comply with the laws and regulations that are based on ethical values, which are responsible for the well-being of the society in general, take into consideration its stakeholders and respect people, communities and the environment. A CSR oriented corporation must form statements or practices and way of behaving that reflect organizational values and principles and then to allocate corporate resources to a socially desirable activity and to measure the effect of the corporate behaviour on society. According to Hsu (2012), CSR activities can bring about positive brand image and reputation and according to Bhattacharya and Sen (2004), it is considered a mean for companies to enhance relationship with customers. According to Radu (2009) CSR has evolved from being an abstract concept into a contemporary way of thinking and action in the business world and society in general. It constitutes a tool in finding solutions for a lot of social problems. The development of CSR was based on various factors including the globalization, the technological advances, the consumers' rights as well as their distrust towards companies. CSR involves going beyond the minimum legal obligations and contributes in the solution of social problems. By performing CSR activities, companies can help to reconcile economic with social and ecological interests (Radu, 2009).

CSR programs in order to be successful and have positive impacts on society and the planet should be creative and innovative in the sense that they are directed to solve world social and ecological problems. Although many researches confirm that CSR could create positive perceptions of customers toward company such as: customers' loyalty and trust and repeat purchase, however, there are also researches which show that customers will not blindly accept the CSR programs as sincerely actions of the companies especially when these activities and programs are only in the short term (Ellen et al. 2000, Sen and Bhattacharya, 2001). Companies given the above research findings need to be creative and they must try to identify social non-profit Organizations which reflect their values and principles to form a long Lasting Social Alliances for their mutual interest.

2.2 Cause Related Marketing

The long-lasting Social Alliance of a profit Organization with a non-profit Organization is known as Cause Related Marketing (CRM). This can be simply considered as marketing with a worthy cause, a form of marketing that uses various strategies, tools and traditional advertising methods to change attitudes, perceptions and behaviors as they relate to social issues. CRM is an exciting concept where both business and charity (or good causes) can benefit (Skory and Repka, 2004) and where a corporation commits to making a contribution or donating a percentage of revenues to a specific cause based on product sales (Kotler and Lee, 2005). CRM campaigns support a wide range of causes, those most visible are the ones with the biggest followers, most commonly associated with major health issues (e.g. cancer, heart disease, AIDS), children's needs (education, hunger, medical needs), basic

needs (hunger, homelessness), and the environment (wildlife and nature preservation, etc) (Kotler and Lee, 2005).

A CRM campaigns can have a positive impact on the company but at the same time, it can also harm the company if it is not done with the right way (Demetriou,M.,et al. 2010).The profit Organization must be very careful in selecting their social partner in order not to harm their image, and choose a cause which has value for all the stakeholders of the Corporation (Demetriou.M., et al , 2010)

According to Candid. Learning (2021), Cause Related Marketing (CRM) is a collaboration that benefits both a corporation and a nonprofit organization. CRM can increase the company's sales whereas, it can promote the nonprofit organization's cause. Nonprofit organizations can be benefited from the exposure and the fundraising that CRM offers (Candid. Learning, 2021). CRM can increase sales and market share, enhance the company's image and can strengthen the brand positioning (The Social Strategy Group, 2021).

It seems that CRM is the latest buzzword for European marketers who have come to realize that alliances of companies with charities can potentially result in growing market shares and customer loyalty (Bronn and Vrioni, 2001).The goal of every cause-related, social and community-based marketing campaign is to promote a greater awareness and consumer participation in the existing programs and to demonstrate the power of the specific brand in partnership with charities and social causes in order to make a positive impact on society as a whole (Skory and Repka, 2004). CRM can be considered as a means by which relationships with stakeholders can be developed effectively. Experts say the chosen cause should have value for both stakeholders and the company (Wood 2010).Cause related marketing is a term used to describe marketing campaigns carried out by a company for the purpose of encouraging a positive cause rather than just seeking sales. Higher long-term revenues, as well as promoting brand recognition and improving the company's image, are also the end goals of these campaigns. The pledge of increased corporate giving focused on customer purchases has become a popular tool for cause-related marketing. Cause marketing techniques can be used by brands to establish a distinct brand name in a region where all product and service suppliers may seem to be identical at first glance. Furthermore, cause-based Marketing can be used to boost staff interest and help in the supply chain. Consumers like to feel like they're working for or doing business with a socially conscious company (O'Neill, 2020).

The potential benefits of Cause Related Marketing for companies include positive public relations, improved customer loyalty and additional market opportunities (Wei, et al., 2020).

Cause Related marketing is a cooperative arrangement between a for-profit business and a nonprofit organization for a mutual benefit. In this marketing activity, a partnership is formed with each other

to market an image, product, or service for mutual benefit. (mailchimp, 2021) Typically, a brand's collaboration with a nonprofit organization reinforces its social responsibility. In return for their ethical contributions, the non-profit organization creates more awareness for their organization in the collaboration. (mailchimp, 2021)

Research has shown that customers have a positive view for companies that partner with charities, even though it is clear to them that the companies benefit financially from the partnership and that its contribution to society is not that high. The findings of the research show that CRM can make consumers to switch brands as well as increase spending for products or services linked to charities and good causes (Farache et.al, 2008).

2.3 CSR and the Financial Crisis in Cyprus

A major question at this point is whether the corporations are willing and able to continue their CSR and CRM programs during the periods of Economic Crisis.

According to Nakashima and Ota (2016), CSR contributes in the stability of businesses during a crisis and in the profitability of a company by transforming basic values and helps in overcoming environmental crises. Many researchers have conducted studies on the relation between CSR and corporate financial performance but there are not so many studies regarding the effects of the financial crisis over CSR. However, some researchers argue that CSR is a threat for the company during and after a financial crisis while others believe that it must be seen as an opportunity of providing long-term survival and sustainability to the business despite any financial crisis (Yelkikalan & Köse (2012). Within the business world, the main concern for companies has historically been to make profits and increase shareholder value. However, in the last decades the concept of Corporate Social Responsibility (CSR) has emerged and has become prominent in many companies. Undoubtedly, CSR definition is complex and there is not a worldwide accepted definition of CSR. European Commission's approach of the concept (2011) is that "CSR refers to companies taking responsibility for their impact on society". In addition, EC considers that CSR is crucial in terms of innovation, competitiveness and the sustainability of companies and the economy in general as "it brings benefits for risk management, cost savings, access to capital, customer relationships, and human resource management" (European Commission, 2011).

When the recession hit Cyprus, the island came across hard times because of its large exposure to Greek debt. The Cypriot financial crisis burst out in 2012-2013 and involved among others the exposure of Cypriot banks to overleveraged local property companies, the Greek government-debt crisis and the downgrading of the Cypriot government's bond credit rating to junk status by international credit rating agencies (Papaioannou, 2015).

The country was forced to ask the European Union for a bailout and the EU agreed saying, "If we're going to help you, you can first help yourself." This was the beginning of a controversial and unusual since then move to force everyone that have deposits in a Cypriot bank to pay for the bailout (KW, 2013). Therefore, the financial haircut took place on the island imposing a one-time bank deposit levy on the deposits of more than 100000 euros of the Cyprus Popular and around 48% of uninsured deposits (above 100000) in the Bank of Cyprus (Cyprus Profile, 2014). Immediately after the financial haircut the general picture of Cyprus was depressing and shocking. People lost their jobs and sank into debt. The unemployment rate increased to 14.3% and the number of homeless people increased rapidly and many of them could not even find a place to sleep and they were forced to sleep in their cars. Hundreds of people were unable to pay their rents and bills and many people failed to repay their loans. Others were forced to stop their children from studying while others had no money to go to a doctor. The overall situation in Cyprus during that time was discouraging and unpleasant with many people struggling to survive while at the same time the response of the more advantageous citizens was astonishing and yielded trucks full of food and other essentials, trying to help all those people in need (Kathemerini, 2013).

2.4 The Cyprus Anti-Cancer Society

The **Cyprus Anti-Cancer Society** (established in 1971) is a registered **Charity Organisation** that cares for people with cancer providing them with complete **Palliative Care Services** in line with international standards. The aim of the Society is to support not only the Cancer Patients but also the patients' families and caregivers, and at the same time to inform the wider public about cancer prevention, diagnosis, treatment and relief. The Anti-Cancer Society has two Palliative Care Centers: one in Nicosia and one in Limassol. The Center in Nicosia with the name 'Arodaphnousa Hospice' is the only Hospice in Cyprus which provides a wide range of palliative services including pain control and other symptoms deriving from the illness or its treatment, Psychosocial support, Physiotherapy/ Aromatherapy, Hosting of the patient during treatment (particularly when the patient resides far from the designated oncology centres), Hosting of the patient's family allowing them a break from care giving, which can be a highly demanding task Care during the final stages of the illness. The Evagorion Centre in Limassol has been built and equipped to European standards and has become a point of reference and support for cancer patients in Limassol and Paphos. It is currently equipped with 6 beds and operates as a day care centre, offering palliative care and other supportive treatments such as transfusions, hydrations etc. At the same time the Anti-Cancer Society provides Homecare services to Cancer patients who choose to remain at home. The service employs nurses, psychologists, social workers and physical therapists who work with the patient's oncologist and count on the support of the doctors at the Arodaphnousa Palliative Care Centre. This team of professionals

coordinate and cooperate to ensure a comprehensive care, tailor-made to the needs of each individual patient. The patients are usually referred to the service by their treating physician. However, the patients or their family can seek help from the service at all the offices of the Society. The patients can also borrow the equipment they need from the Centre, such as special medical beds, wheelchairs, oxygen delivery systems etc. All above mentioned services are provided for FREE to all residents in Cyprus and the cost of those services is covered from corporate donations, individual donations, charity activities and governmental support. One of the companies which has been a long term supporter of the Anti-cancer Society is Lidl-Cyprus.

2.5 Lidl Cyprus and its Social Responsiveness

Lidl Cyprus entered the local market in 2010 and since then it opened 18 stores, employing more than 600 employees. Lidl Cyprus heavily invests on a Sustainable Development Strategy. Their Strategy incorporates specific values and responsible business practices related to the following 5 areas: Products, Environment, Employees, Society and external Partners. Therefore, Society seems to be an important pillar of their Sustainable Development Strategy. Based on this philosophy, Lidl Cyprus, just after the 'Financial Haircut' of 2013, has joined efforts with the Cyprus Anti-Cancer Society (CAS) and formed a Social Alliance with this Charity Organization. Since then Lidl Cyprus remains a strong supporter of CAS. Nowadays, when the Covid-19 Pandemia was spread in Cyprus with even more negative effects on the Anti-Cancer Society, Lidl Cyprus decided to intensify its CRM program.

3. THE RESEARCH

3.1 Research Aim and Objectives

The research aim is mainly to examine the nature of the long lasting Social Alliance between Lidl Cyprus and the Cyprus Anti-Cancer Society (CAS), which started during the Financial Haircut of 2013 and was intensified during the COVID-19 Pandemia. Furthermore, this research project will evaluate the impact of this Partnership on the corporation's Brand Image and reputation, employees satisfaction and retention as well as the survival of the Cyprus Anti-Cancer Society.

In order to accomplish the research aim the following objectives have been developed:

1. To explain the CSR and CRM concepts and their value in periods of Economic Crisis or other disasters via literature review.
2. To analyze the CRM activities of Lidl Cyprus which started just after the financial haircut of Cypriot Depositors and continues until today when the island is facing another unprecedented disaster - the outbreak of the Covid 19 Pandemia via semi-structured interviews.

3.To explore what have lead the Lidl Cyprus to engage in CRM activities after the financial haircut via semi-structured interviews.

4.To examine the effectiveness of the CRM activities of Lidl-Cyprus to their Brand Image and Corporate reputation and employee satisfaction

5.To examine the impact of this Social Partnership to the Cyprus Anti-cancer Society, the Cancer patients and their relatives as well as the Cyprus Society in general

6.To provide feedback to the companies in Cyprus and abroad on the impact of well-designed CRM strategies in periods of Economic and Social Disasters and to encourage them to adopt similar strategies during and after the COVID19 pandemic outbreak.

3.2 Research Methodology

In order to examine and reach the study's objectives, qualitative data was collected. More specifically, a semi-structure interview with the CSR Manager of Lidl Cyprus was conducted in order to get the necessary information for the second, third and fourth objective For the fifth objective a one to one semi-structured interview was conducted with the President of the Boards, the CEO and the PR and Communication officer of the Cyprus Anti-Cancer Society. According to Iosifides (2008), qualitative survey is a significant methodology tool used in social science which gives the opportunity to the researcher to study the subject in question thoroughly, as well as to take into account various viewpoints and aspects. Qualitative research seeks to discover and understand motivations and drivers by using in depth interviews and it is very useful when we want to examine a subject or a specific part of the population (Creswell, 2007). In this study, it is important to explore the motives, thoughts and considerations of Lidl Cyprus when they decided to form a Social Partnership with the Cyprus Anti-Cancer Society just after the financial haircut of 2013. The study also aims to examine the effectiveness of this strategy during the last 8 years (2013-2021) from the corporations' point of view as well as from their Social Partner's point of view.

Purposive sampling method was used which rests on specific characteristics of the participants that suit the aim of the study (Ilker at al., 2016).Therefore, for this study, the interviewees were coming from three key people- two from the Cyprus Anti-Cancer Society and one from the profit Organization-Lidl Cyprus. Since the qualitative research is based on small numbers and does not need a big sample.) the number of participants (3) was satisfactory and sufficient so as to reach the study's objectives. All the participants were of course firmly related to the topic under investigation (Iosifides, 2008) and were the appropriate persons to answer the questions of the interviewer.

4. RESEARCH FINDINGS

4.1 Interview with the Team Manager of Communications-Lidl Cyprus-

Research Objectives: 2-4

During this long-lasting in-depth Interview, the researcher had the opportunity to share the enthusiasm of the Manager about the Social Partnership of Lidl with the CAS. As she had emphatically said 'Our Mission is to take an active and essential role in society and support our fellow human beings'. 'Our cooperation with the CAS gave us the opportunity to achieve our mission. We wanted to actively formulate processes and mobilize society in action and participation which in my opinion is even more important than just donating money or goods to the CAS' the Manager said. 'We have been part of this alliance for 9 years and we always act with a sense of responsibility and empathy for the good cause' she added. She also said that they are very proud for the fact that The Cyprus Cancer Society characterizes Lidl Cyprus as a valuable ally in the effort to alleviate the pain of our fellow human beings suffering from cancer and to support their loved ones'. When the manager of Lidl was asked about the value of Cause Related Marketing in comparison to any other form of Corporate Philanthropy the answer was direct and positive. 'CRM builds long lasting strong and fruitful bonds with not only the charity we support but with all our stakeholders'. She also added that there are measurable results in the form of indicators in the socio-economic study of the company, which was prepared only this year and they show the positive impact of this CRM strategy on their brand image among most of their stakeholders starting from company's employees, customers, suppliers and the Cyprus Society in general. The interviewee concluded that the corporation started this Social Partnership during a very difficult period for the survival of the CAS back in 2013 and just after the 'Financial Haircut' which had a tremendous negative impact on the Cyprus economy and since then they continuously enrich this partnership with innovative and profitable for CAS projects. Even now with the COVIC-19 outbreak and all the negative consequences to the whole economy we decided to intensify our contribution to the CAS and we 'Adopted a Room' at the 'Arodaphnousa' Hospice which is an extra amount of 100,000 Euro. At the same time, we organized and covered all expenses of a special Music Event at a Local TV Chanel which helped the CAS to raise an additional amount of 40,000Euro. We have also decided to continue covering all expenses for the Nutritional Program of the Hospice. 'We will always stand by the side of CAS, since 'Everyone at Lidl Cyprus' believes in the Cause, we trust our Partners and we want CAS to continue offering its valuable services to all Cancer Patients and their families for Free'.

*4.2 Interview with the President of the Cyprus Anti-Cancer Society**Research Objective:5*

The researcher had the opportunity to have a very friendly and fruitful interview with the president of the Cyprus Anti-Cancer Society in an effort to sense the impact of the Corporation's Cause Related Marketing Campaign on their Social Partner (the CAS). The President of the Cyprus Anti-Cancer

Society, has outlined the value of the contribution of this Social Partnership which was initiated just after the Economic crisis of 2013 and continues with more enthusiasm and creativity on behalf of Lidl Cyprus up today when the Cyprus Society is facing an additional disaster- the COVID -19 Pandemic with all its social and Economic negative consequences. The president has characteristically stated: "Lidl stands always by our side since 2013 and helps us face the challenges with hope and optimism because we know that we have strong alliances to support our cause". The president explained to the researcher that the Anti-Cancer Society faced a lot of Economic Problems during the period of the Financial Crisis since a lot of corporations couldn't afford to provide financial support to the Society due to the 'haircut' of their deposits and a lot of Cypriots who were supporting all fund-raising activities of the Society ended up unemployed or with tremendous salary cuts. Nevertheless, as the president added, "we had to continue offering our services to the Cancer Patients across Cyprus for free. Thanks to initiatives such as that of Lidl, the Bank of Cyprus and a few more valuable social Partners we managed to survive those difficult times". "This year", the president continued, "we were faced with additional unprecedented circumstances. The COVID-19 pandemic has affected us all. Nevertheless, we had to continue serving thousands of cancer patients across Cyprus by adapting our free services to the new actualities. Once more Lidl, as a loyal partner, supported our organization with additional initiatives'. "For us, Lidl Cyprus is one of our most valuable ally and supporter and we are grateful to have them by our side", the president of the Anti-Cancer Society concluded.

4.3 Interview with the Communications and PR Manager of the Cyprus-Anti Cancer Society. Research Objective no.1 & no.5

In an effort to identify the nature of the Social Partnership of the Cyprus Anti-Cancer Society with Lidl Cyprus, from the Marketing point of view of the Social Partner, a long but interesting interview with the Communications and PR manager of the Society took place. The Manager was very enthusiastic when explaining in detail the nature of the Social Partnership with Lidl Cyprus and providing a list of activities within their long-lasting Cause Related Marketing campaign

Summarizing the most important activities as explained by the manager of the Anti-Cancer Society the researcher presents the following activities:

1. Lidl Cyprus donates a percentage from the selling price of a product every Christmas. Through this action, the company calls on the Cypriot public to support the work of the Cyprus Anti-Cancer Society by purchasing the certain product. This year, Lidl offered €15 with each purchase of selected wooden toys.
2. They are the main sponsors of the "Dinner of Love", which is a fundraising dinner held at the Presidential Palace. Due to the COVID-19 restrictions, the event was cancelled this year. Instead, Lidl

doubled its sponsorship budget and held a telethon at Alpha TV which brought more than double donations for the CAS than the traditional fundraising dinner.

3. Hosts at the Lidl Food Academy various fundraising events that include fashion shows, tea parties and other charity events. Also, during Christmas time, volunteers use the facilities of the Lidl Food Academy to prepare homemade desserts which are sold at the Society's Christmas event.

4. Additionally, on a random basis, Lidl has been providing "special treats", such as ice cream or candy, for patients and families at the 'Arodafnousa' Hospice.

"From a marketing point of view", the manager of the CAS explained to the researcher that "as this relationship grows, and we come to realize that Lidl has been creating a good social responsibility image which also broadcasts its timeless corporate values". The manager also added that "Every action receives a good amount of publicity (ATL and BTL)" and this is expected since the various actions have a direct impact on the CAS's patients, families, volunteers and personnel which are all great communicators of the brand and its CSR orientation". In the researcher's question to provide an indication of the impact of this alliance to the CAS, in monetary terms, the manager said that for the past 9 years, Lidl supports the CAS with monetary donations and donations of products the total value of which exceeded €460,000. Since 2015, Lidl Cyprus covers entirely the nutritional program of the 'Arodafnousa Palliative Care Center', so as the Society will be able to provide daily, tasty and healthy meals to patients. This year, recognizing the Society's growing needs and its limitations due to the COVID-19 pandemic, Lidl Cyprus had expanded its support towards the CAS, by "adopting" a room at 'Arodafnousa' and thus covering its operating cost for the year which amounts to €100,000. When the manager was asked how easy it is to run this kind of social partnership with a profit organization and the difficulties, if any, that they faced during the last 9 years, the manager said that this is a relationship based on good faith from both parties and since there is an honest concern for the well-being of people suffering from Cancer this relationship has never faced any unsolved problems.

The manager of CAS also underlined the benefits of forming long lasting alliances with a profit organization rather than short-term cooperation. As she said, "A long-lasting social Alliance with Lidl is very beneficial for the Anti-Cancer Society, as we have built a strong relationship with the company and, thus, we are able to better communicate our needs to them so they can figure out if they are able to help in any additional way. Our policy is to be respectful towards our donors and don't exploit their "kindness". The manager was positive that "This long-term partnership also benefits the company as it is able to build public awareness and "connect" its brand with a reputable charity like the Cyprus Anti-Cancer Society.

5. CONCLUSIONS AND RECOMENDATIONS

Socially Responsible Companies are always at the front line and ready to adopt Socially Responsiveness programs during and after unprecedented Economic, Political and Social Disasters. At Lidl Cyprus, they share the view that Cypriot consumers expect the profit organizations to have a dynamic and substantial role in supporting non-profit organizations in periods of Poverty and other unprecedented disasters which offer value to the Cyprus Society. This view is aligned with the findings of *Bhattacharya and Sen 2004* and *Demetriou et al. 2010* who also, based on their studies, concluded that consumers expect corporations to be involved in CSR activities and play an important role in the alleviation of Social problems and particularly they expect more from them during the periods of environmental crisis. This view is also aligned with the research findings of Nakashima and Ota (2016) who supported that CSR contributes in the stability of businesses during a crisis and in the profitability of a company by transforming basic values and helps in overcoming environmental crises. However, according to Yelkikalan & Kose (2012) some researchers argue that CSR is a threat for the company during and after a financial crisis while others believe that it must be seen as an opportunity of providing long-term survival and sustainability to the business despite any financial crisis. The Manager of Lidl claimed that their company considers CSR as an opportunity in periods of Economic crisis and that with the carefully designed CRM program with a cause of great impact in the Cyprus Society, like the CAS, Lidl has been benefited to a great extent. The fact that Lidl Cyprus has chosen CAS as their Social Partner because they consider the cause of 'great Impact' in the Cyprus Society is aligned with the Research findings of Wood (2010) and Demetriou et al (2010) which show that the chosen cause should have value for both stakeholders and the company. Especially at Lidl, they believe that their partnership with the CAS has enhanced the bonds with their stakeholders. This view is aligned with O'Neils findings (2020) which showed that Cause Related Marketing can be used by brands to establish a distinct brand name in a region and boost staff interest and help in the supply chain. Also consumers like to feel they're working for or doing business with a socially conscious company (O'Neill, 2020). Wei et al (2020) also agree that the potential benefits of Cause Related Marketing for companies include positive public relations, improved customer loyalty and additional market opportunities. Another very important finding of this research paper is that Lidl Cyprus has measurable results based in the form of indicators in the socio-economic study of the company which prove the positive impact on their Brand image among all its stakeholders.

When examining the impact of the CRM strategy of Lidl from the Social Partner's point of view, both interviewees of the Anti-Cancer Society emphatically underlined the value of this partnership and its contribution towards the survival of the CAS during and after the Economic Crisis of 2013 and the Covid-19 Pandemia. Both interviewees over-emphasised the value of this partnership for the Society

not only in monetary terms but also in building awareness on the Cause through all the CRM activities of Lidl organized and communicated to the public

The mutual benefit of the Cause Related Marketing program of Lidl Cyprus to the Cyprus Society and the corporation may inspire companies in Cyprus and abroad to initiate innovative CRM programs during and after the COVID-19 Pandemic for the Benefit of their people, their Economy and their own Brand Image and Profitability

Marketers of CSR Oriented companies around the world must turn the new challenges created by the current pandemic outbreak into new CRM opportunities which can Benefit the society and at the same time enhancing their Brand image.

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THE IMPACT OF EURO ADOPTION ON MORTGAGE RATES: WHAT CAN CROATIA EXPECT?

Dukić, Mirko; Walker, Kevin; Samardžija, Jasminka

RIT Croatia, Zagreb, Croatia

ABSTRACT

The purpose of the paper is to study the effects of euro adoption experienced by Eurozone countries on retail interest rates before and after adoption. While most of the studies in this field have focused on inter-bank rates, this research studies mortgage rates, thereby seeking to provide insight to both households and the banking sector as to how euro adoption might impact mortgage rates. Specifically, this study researched whether or not mortgage rates converged (in terms of levels and tracking) in five year periods before and after adoption in Estonia, Latvia, Lithuania, Slovenia, and Slovakia. Ultimately, the intention of this effort is to determine what could happen to Croatian mortgage rates when Croatia adopts the euro. The results were inconclusive in that no consistent patterns were discerned among the studied countries over the identified time periods. The strongest instance of convergence (four of the five countries) occurred in the pre-adoption period when considering whether adopting countries' mortgage rates tracked Eurozone averages. Overall, however, the findings showed that the five observed countries experienced different degrees of convergence and sometimes even divergence of mortgage rates. Hence, without identifying a pattern of behavior among mortgage rates, an estimate for the Croatian case could not be made.

Keywords: Eurozone; mortgage rates; interest rates; convergence; Croatia; Euro

INTRODUCTION

This paper researches mortgage rate convergence in five Central and Eastern European Countries (CEEC) in the Eurozone. This paper may be viewed as a narrow line of inquiry, considering that the research on this topic has heretofore predominately focused on inter-bank markets and instruments like government bonds rather than the rates experienced directly by households. The results obtained are intended to allow for drawing conclusions as to what the Croatian financial service sector and households may expect from the euro-adoption process.

The January 1, 2023 anticipated euro-adoption date for Croatia (Daily Croatia, November 11, 2020), making it the 20th of 28 European Union members to adopt the Euro, will bring a number of changes to the county. Given that home ownership represents a large portion of Croatian household wealth (Kunovac, 2020), of particular interest is the question as to what might happen to mortgage rates.

Additionally, the fact that the mortgage market acts as an important mechanism in transmitting changes in European Central Bank (ECB) policies to the housing market (Sørensen & Lichtenberger, 2007) makes this research relevant. This research will examine the issue of mortgage rate convergence experienced by past euro-adopting countries with the aim of gaining insight as to what might happen to Croatian mortgage rates leading up to and after the Euro is adopted.

The Republic of Croatia currently uses the kuna as its official currency, but after joining the European Union (EU) in 2013, it became apparent that it would be only a matter of time before it adopted the euro. In advance of adoption, a process of economic convergence is required to take place. The Maastricht Treaty concluded in 1992 among member states of the European Communities, the predecessor of the European Union, effectively serves as the foundation treaty of the European Union and has defined four convergence criteria.

The notion of convergence usually refers to the process of structural and institutional harmonization among members with the intention of enabling those who underperform to catch up with members who perform well (Afxentiou, 2000). In other words, the incentive for countries to join the EU has been the allure of being able to attain a similar standard of living standard of existing member countries (Bongardt et al., 2013). In this context, a country like Croatia aspiring to join the monetary union would need to have central bank enforcing policies that would provide price stability and sustainably keep inflation low, as reflected by low long-term market interest rates. In addition, managing public debt and the budget deficit would need to be credible and the government would need to show firm action in these areas (Borowski et al., 2003). The last step would be for the future member to undertake measures to ensure participation in the ERM II, the Exchange Rate Mechanism, which would imply fulfillment of the convergence criteria (Borowski et al., 2003).

In November, 2020, Croatian Prime Minister Andrej Plenković officially announced January 1st of 2023 as the euro-adoption date for Croatia (Ilic, 2020). This came a year after the Eurogroup's statement (2019) welcoming Croatia's efforts to join the Exchange Rate Mechanism (ERM II), a step in the process of joining the monetary union, the Eurozone, and a few months after the Eurogroup's decision to approve participation of the current Croatian national currency, the kuna, in this mechanism (European Central Bank, 2020).

Euro adoption, as anticipated, will be the responsibility of and under the supervision of the Croatian National bank (HNB) which is in charge of executing monetary policy. While executing its monetary policy, the HNB must make sure that the amount of currency and coins within circulation are enough to meet demand (Greenlaw, 2014). In order to achieve its objectives, the HNB uses a set of three instruments: open market operations, reserve requirements, and standing facilities. The HNB is able to issue and sell securities in national or foreign currency, as well as buy and exchange them, thereby

affecting the kuna's exchange rate (Rudelić, 2018). It is important to note that having implemented a floating exchange rate regime, the Croatian National Bank (HNB) never actually defines the exchange rate, but rather chooses to intervene in the market only when needed in order to stabilize the rate (Ivanov, 2017). However, once Croatia adopts the euro, the HNB will have to adjust its operations to new circumstances.

The HNB's monetary policy instruments that were used prior to the adoption of the euro will be replaced by those of the Eurosystem, which has the potential to largely impact banks as reserve requirements will be lower (Croatian National Bank & Government of the Republic of Croatia, 2018). In practice and as per theoretical interpretations, it has been shown that the lower reserve requirement, the required amount of cash banks need to hold in reserves, induces lower interest rates and effectively means more loans which in turn enlarges the total supply of money circulating, expanding the economy. According to the quantity theory of money (QTM) this usually comes at the cost of a higher real inflation rate if the extent of money supply expansion is larger than that of the economic growth (Mankiw, 2015).

Analogous to the Croatian Central Bank operating in Croatia, the European Central Bank (ECB) is in charge of administering monetary policy in the EU, which, in other words, means that individual EU members have little to no influence over controlling their own money supplies. As such, the supranational institution, the ECB, is the primary body in terms of deciding on monetary policy as compared to any individual country's national central bank (Yanushevsky et al., 2018). This means that the commercial banks in the whole eurozone will be affected by the ECB's decisions and the use of its instruments.

The European Central Bank influences the money supply mainly through control of three interest rates: the rate on the marginal lending facility; the rate on the deposit facility; and the main refinancing operations rate. The rate that plays a relevant role in the process of commercial banks setting their interest rates for their customers is the Euro Interbank Offer Rate, Euribor, which represents an indicative interest rate published every day that essentially shows the average of rates of selected banks for a set of maturities (Abbassi & Linzert, 2012). Wallace (2015) defines Euribor as "a benchmark [rate] compiled by some [20] of the biggest banks in the world, which submit an interest rate each day representing the cost of lending to another large bank". One of the Euribor's functions is to assist in setting mortgage rates in many European countries. Specifically, Euribor-based variable rate mortgages are priced on the Euribor; borrows will pay interest equal to the Euribor rate plus some commission (Euribor rates, n.d.).

Unlike most other loans, an overview of loan offers by Croatian banks suggests that housing loans are subject to either a combination of fixed and variable interest rates (occurring respectively) or to a

variable rate during the entire payment period. Raiffeisen Hrvatska (2021) defines a variable interest rate as “the sum of the fixed part...and of the 12-month Euribor determined on the day of 28/5/2020 in the amount of -0.08%, less 0.50% of the primary customer bonus”. This is not the same for all banks in Croatia, and some loans are actually (national reference rate) NRS-dependent. However, as stated in Croatia’s Plan for Replacement of National Currency with Euro (Croatian National Bank & Government of the Republic of Croatia, 2020) banks will not be able to issue any new loans with variable interest rates linked to the NRS. The NRS will not cease to exist, but the NRS HRK, which is the NRS applicable to the selected loans with variable rates issued in kunas, will merge with NRS EUR as per specific methodology elaborated in the plan.

In the Strategy for the Adoption of the Euro as the Official Currency in Croatia (Croatian National Bank & Government of the Republic of Croatia, 2018), numerous benefits of euro adoption have been identified including the elimination of exchange-rate risk, reduction of the cost of debt, and a lessening of the overall probability of a banking crises. Joining the Eurozone, according to the Strategy for the Adoption of the Euro as the Official Currency in Croatia (Croatian National Bank & Government of the Republic of Croatia, 2018), may as well bring potential challenges including inflation resulting from conversion costs, loss of sovereignty, and additional costs of joining the euro system and providing obligatory financial support to struggling Eurozone members.

This paper addresses other implications Croatia will face once the euro is adopted. Specifically, it aims to explore the possible repercussions associated with euro adoption by evaluating its impact on the interest rates on housing loans; namely, will Croatian mortgage rates’ levels converge with Eurozone rates as well as track changes in them?

It is expected that adoption of the euro will affect interest and mortgage rates within an adopting country for various reasons: the country will be exposed to influences that affect other Eurozone countries; the European Central Bank will have expanded authority over the adopting country’s monetary system, effectively replacing the country’s national central bank; and the removal of currency risk which is represented as a premium on commercial loans’ interest rate (Hüfner and Koske, 2008). Following what Ivanov (2017) noted, it is concluded that once long-term interest rates (on public debt) have converged, it will be reflected in commercial banks’ loans in that they would not differ significantly from those in the Eurozone. There is empirical support that interest rate convergence does take place as supplied by the Greek experience. Note that nominal rates on Greek government bonds dropped by 13 percentage points in just over 5 years, followed by a deeper drop after the euro adoption, resulting in Greek rates almost reaching parity with German rates (Eichengreen, 2019). However, the attained convergence is not necessarily permanent, as a country may see divergent trends long after the Maastricht criteria have been fulfilled as happened during the

financial crisis in 2008 and 2009 when the bond yield divergence got under way in some Eurozone members (Kunovac & Pavic, 2018).

Past research into interest rates reveals inconsistent findings when considering different forms of convergence between a Central and Eastern European (CEE) country, such as Croatia, and the Eurozone. For example, in their research, Sander and Kleimeier (2006) found that pass-through occurred in CEE countries at a quicker rate than in Eurozone countries. Moreover, this same study did not find evidence of a convergence between CEE countries' pass-through and the Eurozone's. Likewise, Franks et al. (2018) in their study into economic convergence within the Eurozone found mixed support for convergence. While inflation converged considerably before adoption, it did not continue to do so post-adoption. Additionally, nominal interest rates were found to have converged among Eurozone countries in this study, but then diverged during the financial crisis of 2008.

When considering real interest rates (with three-month money-market rates as the unit of analysis), Deskar-Škrbić et. al (2020) found convergence between three CEE countries (Czech, Hungary and Poland) and the Eurozone. Also looking into short-term money market rates, research conducted by Hufner and Koske (2009) arrived a similar conclusion, finding that one-month money market rates in Slovakia converged to Eurozone levels pre-adoption. Moreover, these authors suggest that Slovakia's retail interest rates will perform as other Eurozone members' retail rates and converge to the Eurozone average. When looking at real interest rates in non-CEE countries, an examination revealed that Greece, Ireland, Portugal and Spain also experienced convergence of real interest rates several years before euro adoption and continued for several years post-adoption (Eichengreen & Steiner, 2008).

Some research has been directed at housing loans as related to euro adoption. Eichengreen and Steiner (2008), for example, noted that interest rates on loans to households did not converge to Eurozone levels after Poland joined the EU (representing the pre-adoption period). Other research using MFI statistics over a ten year period that started just before the euro's official introduction pondered euro adoption's impact on mortgage rates in the Eurozone (EA-12). This work found that mortgage rates did not converge throughout the Eurozone over that time period. Neither the levels nor the changes of the Eurozone countries' mortgage rates converged (Sørensen & Lichtenberger, 2007).

This paper seeks to provide some clarity surrounding the issue of convergence of euro-adopting countries pertaining to mortgage rates. Based on finding of earlier studies into different interest rates and mortgage rates, it is unclear as to what to expect when a country adopts the euro. As previously stated, Croatia plans on officially introducing the euro on January 1, 2023 and this research seeks insight as to how Croatian mortgage rates will react to adoption.

METHODS

Purpose

This paper attempts to research whether or not mortgage rates of observed euro-adopting countries followed the movements of the observed rates in the Eurozone before and after adopting the Euro. In addition, the paper investigates if convergence did occur and if it was reflected by the decrease over time in the difference of mortgage rates found in the observed euro-adopting countries and the eurozone.

A set of statistical analysis methods was applied to the secondary data collected in order to identify if euro-adopting countries had their mortgage rates getting closer to those of the eurozone, which would imply convergence. Furthermore, the paper set out to determine if correlation between the movements of mortgage rates in selected countries and movements of mortgage rates calculated in the form of Euro Area (Eurozone) average exists. The purpose was to determine if a pattern exists in mortgage rate behavior before and after euro adoption, and to form expectations of what will happen with loans in the Croatian mortgage market as associated with Euro adoption.

Instruments

The data was collected from the ECB Statistical Data Warehouse website, in the form spreadsheet containing interest rates. The data was collected in the form of interest rates. All collected interest rate data refers to mortgage loans with an initial rate fixed (IRF) for between five and ten years, which, according to the paper of Hüfner and Koske (2008), may be representative of the euro adoption process and its impact on interest rates. The time frame observed is 10 full years separated into 120 monthly segments, which entails a period commencing five years before adoption and ending the month before the adoption, and the period starting on the month of the adoption and ending five years later. This time frame was supposed to allow for the analysis of how mortgage rates will behave differently before and after the euro adoption.

This research's intent was to examine all Eurozone countries; however, the initial twelve adopters of the euro could not be analyzed as a Eurozone average mortgage rate did not exist prior to their Euro adoption (they were the first adopting countries). Bearing in mind that data for Malta and Cyprus is not available on any mainstream website including their national central banks and the ECB's database, only five countries were able to be analyzed: Slovenia, Slovakia, Lithuania, Latvia, and Estonia.

Five pieces of information were collected for each observed country: dates (month and year), mortgage rate in that month, Eurozone average mortgage rate in that month, and the absolute difference between these two interest rates. It is important to note that Eurozone averages excluded

the observed country's mortgage rate from the average. Differences in the mortgage rates between countries and Eurozone averages were expressed in absolute values. In addition to this data, the mean of Eurozone average mortgage rates was calculated for the purpose of performing t-tests.

Correlation analyses were run for the two sets of variables: (1) number of months (1 to 60 in the two periods: pre-adoption and post-adoption) and (2) the difference between a country's interest rates and Eurozone average mortgage rates. These analyses were supposed to indicate if the mortgage rates difference decreased or grew as time passed, determining if the adopting countries' mortgage rate level converged with the Eurozone average. Another correlation analysis run was for observed mortgage rates of a country and Eurozone average mortgage rates, indicating if the two sets of rates moved together; if they tracked one another. This analysis is meant to determine if the two sets of mortgage rates changed (direction) in the same manner. Lastly, a one-sample t-test analysis was run to examine if there is a significant difference between the mean of the set of 60 mortgage rates of a country and the hypothesized mean, which in this case, is the mean of Eurozone average mortgage rates. All analyses were separately performed for the pre-adoption period data and post-adoption period data.

RESULTS

Pre-adoption

In order to determine if mortgage rate levels converged, a correlation analysis between months (time) and the absolute value of the difference in the mortgage rates of individual euro-adopting countries and the Eurozone average (excluding the corresponding country) was performed for the pre-adoption and post-adoption periods separately. It was found that in the pre-adoption period, only Lithuania shows a statistically significant correlation ($r = -.708$, $p < .000$) between months and the absolute difference between Lithuanian mortgage rates and the Eurozone average mortgage rates, as shown in Table 2 (Appendix). As expected, the correlation is negative, implying that as the adoption date approached, the difference between Lithuanian mortgage rates for the observed loans and the average mortgage rates of the Eurozone contracted. Such results indicate the existence of convergence. Estonia (Appendix) also exhibited convergent mortgage rate behavior in that Estonian–Eurozone differential and time correlation was negative, however this relationship was not statistically significant ($r = -0.246$; $p\text{-value} = 0.111$).

The other three countries, Slovakia, Slovenia, and Latvia, were all found to have positive correlations between the country–Eurozone difference rate and time (Table 2; Appendix), suggesting divergence and not convergence. Of these three countries, this positive correlation was significant at $p < .05$ for Latvia and Slovakia and not significant for Slovenia. The results for Latvia and Slovakia were

somewhat confounding as they did not simply represent lack of converge, but, rather, statistically significant divergence. In other words, the researched difference between the mortgage rates (adopting country vs. Eurozone average) has expanded despite the deeper integration in the monetary union.

Furthermore, one-sample t-tests were conducted between euro-adopting countries and the EU mortgage rate average in order to see if the euro-adopting countries' mortgage rates were or were not significantly different from the Eurozone average. It was found in all cases that euro-adopting countries' mortgage rates were significantly different at $p < .000$, which implies that the mortgage rates of these countries did not come close to being equal to those of the Eurozone, suggesting that convergence failed to occur. Please see Table 3 in the Appendix for complete results.

When determining if observed countries' mortgage rates tracked Eurozone averages, a correlation analysis between mortgage rates of individual countries and average Eurozone mortgage rates was performed. This produced statistically significant results for the majority of countries in the pre-adoption period. Apart from the Latvian case ($r = .094$, $p = .545$), as shown in Table 1 (Appendix), mortgage rates of the other countries were significantly positively correlated ($p < 0.000$) with the Eurozone average mortgage rates in the pre-adoption period. Similar to the analysis of the correlation between the time and interest rates difference between the Eurozone and the individual countries, Lithuania has the largest correlation coefficient. This means that the interest rates of Lithuania, similarly to other observed countries excluding Latvia, fluctuate most strongly of the observed countries in the same direction as those of the Eurozone.

Post-adoption

When correlating months (time) with the difference in mortgage rates in euro-adopting countries and the Eurozone average, analyzing if the rates' levels converged, it was revealed that the correlation coefficients for the post-adoption period did not show a statistically significant correlation in a majority (60%) of the countries, specifically Slovakia, Slovenia, and Estonia. On the other hand, Latvia ($r = .528$, $p < .000$) and Lithuania ($r = .917$, $p < .000$), did display a strong and positive correlation between time and the difference in their and Eurozone's mortgage rates. This suggests divergence. These two countries saw their mortgage rates move away from Eurozone average rates in a statistically significant manner. Table 5 (Appendix) has complete results.

One-sample t-tests were used to calculate the difference between the mean of Eurozone average mortgage rates and the mean of individual countries' mortgage rates in the post-adoption period. It was found that adopting countries means were significantly different than Eurozone averages at $p < 0.000$ for all countries, indicating, again, that the studied mortgage rates did not converge with Eurozone averages (Table 3; Appendix).

In addition, correlation analysis comparing euro adopting countries' mortgage rates with Eurozone average mortgage rates, determining if the rates tracked each other, yielded mixed results. It was found that only Slovenia saw its mortgage rates to be positively and statistically significantly related to Eurozone average mortgage rates ($r = 0.709$; $p = 0.000$). Latvia's and Lithuania's mortgage rates were also seen to be statistically significantly related to Eurozone average mortgage rates, but negatively ($r = -.773$; $p = .000$ and $r = -.887$; $p = .000$ respectively), suggesting divergence in terms of tracking. Finally, Slovakia's and Estonia's mortgage rates were not found to be statistically significantly related to Eurozone mortgage rates at $p < 0.05$. Please see Table 4 (Appendix) for results.

DISCUSSION

Main findings and the related literature

In its totality, this research did not uncover any consistent effects of euro adoption in the observed countries. In regards to mortgage rates, convergence between euro adopting observed countries and Eurozone averages did not predominate in terms of levels or changes in either the pre- or post-adoption observed periods.

The strongest instance of convergence occurred during the pre-adoption period when changes (increases or decreases) in mortgage rates were considered; do the countries' mortgage rate movements track Eurozone averages. In this case, four of the five sample countries (all but Latvia) exhibited such behaviour. This tracking behaviour, however, deteriorated in the post-adoption period with only one country, Slovenia, displaying such behaviour. In fact, two countries, Latvia and Lithuania, were found to be significantly (at $p < 0.05$) negatively correlated with Eurozone averages, changing opposite to the Eurozone average. The other two countries, Slovakia and Estonia, did not have a significant relationship with Eurozone averages.

When reviewing results for convergence in mortgage rate levels, it is seen that only one country, Lithuania, had its mortgage rate level significantly converge with the Eurozone average in the pre-adoption period. Latvia did exhibit a convergence characteristic, but not significantly. Of the remaining three countries, one, Slovenia, did not have any significant relationship with the Eurozone average while the other two, Slovakia and Latvia, had a significant divergent relationship with the Eurozone averages. In the post-adoption period, none of the euro adopting countries saw their mortgage rates converge to Eurozone averages. Three of the countries, Slovakia, Slovenia and Estonia, experienced no significant relationship with Eurozone averages while the remaining two countries, Latvia and Lithuania had their mortgage rates significantly diverge from the Eurozone averages. Interestingly, Lithuania's mortgage rate level significantly converged with the Eurozone average in the pre-adoption period only to significantly diverge in the post-adoption period.

Of note is Slovenia's case in that it was the only country to experience convergence (in terms of tracking or changes) in both the pre- and post-adoption periods. Despite tracking the Eurozone average, however, Slovenia's mortgage rate level did not converge with the Eurozone average. Latvia was similar in that its mortgage rate level diverged from the Eurozone average in both the pre- and post-adoption periods.

As can be seen from the above, nominal convergence (interest rates; specifically, mortgage rates) has not been observed. These current findings largely support and mirror earlier research that did not find clear and consistent responses of interest and mortgage rates to euro adoption. Note that while Eichengreen and Steiner (2008) found that real interest rates converged in pre- and post-adoption periods, pass-through did not occur uniformly (Sander & Kleimeier, 2006). Additionally, Eichengreen and Steiner (2008) stated that household loans did not converge to Eurozone levels. Finally, Sørensen and Lichtenberger (2007) also did not find convergence of Eurozone mortgage rates over a ten year period. Based on this research and prior research, it would appear that no clear patterns exist as to mortgage rate responses to euro adoption and, thus, one cannot predict with any degree of confidence what will happen to Croatian mortgage rates when Croatia joins the Eurozone.

The question arises, then, as to why Eurozone members' mortgage rates do not exhibit convergence characteristics. One possible explanation is that more time is needed for mortgage rates to converge (meaning that this study's five year post-adoption observation period was too short). Hübner and Koske (2008) postulated that the observed time frames might be too short in their study of Slovakian adoption of the euro. They suggested that interest rates in the retail sector, especially on loans for households, may take more time to drop to the level of the Eurozone interest rates mainly due to the lack of competition and cross-border activity in the banking sector. They additionally noted that it took seven years for Greece to have its housing loans interest rates fully converged and they stated that, based on ECB data, interest rate convergence will take place over (an unspecified) time period.

Ivanov (2017) identifies reasons other than observation time that could account for lack of convergence. Ivanov (2017) argues that despite being subject to the single monetary policy, there are other effects that impact the cost of borrowing; namely, countries have different levels of foreign direct investment and their banking sectors may differ significantly. As such, given these issues, a situation exists whereby it is challenging for countries to have the same interest rates (Ivanov, 2017). Hübner and Koske (2008) discussed other factors that determine the pace of the integration in the monetary union that may cause retardation of the convergence, suggesting that the level of public debt (ten year government bonds) as well as institutional factors including taxation and consumer protection may cause the degree of convergence to differ across countries. In an examination of interest rate spreads of ten year Eurozone government bonds against the German bund (a

benchmark), Manganelli and Wolswijk (2007) suggested that the credit rating of the countries as well as short-term interest rates explained much of the spreads.

This research's findings of divergence have been discussed in prior literature. Ivanov (2017) explained that participation in the EMR II does not imply that divergent trends will never be present. In fact, they may take place in both the pre-adoption and the post-adoption phases. Likewise, Kusovac and Pavić (2018) argued that divergence may be present as a consequence of a sequence of events taking place in financial markets and investors' risk appetite associated with investing in national-level markets. Hence, it may be argued that the fulfilment of the convergence criteria and participation in the EMR II mechanism sometimes may not outweigh the effects of what happens in financial markets and this could subsequently adversely impact the degree of convergence of long-term interest rates on government bonds and mortgage rates. For example, divergence could occur due to the exposure to economic shocks, such as Europe's sovereign debt crisis which saw real GDP growth diverge in countries like Greece and Spain relative to the Eurozone core countries (Bongardt, et al., 2013) and a corresponding divergence in mortgage rates (Neri, 2013). Moreover, Sørensen and Lichtenberger (2007) found variability in mortgage rates in the Eurozone and attributed this in some amount to supply and demand issues specific to individual countries. They also identified institutional characteristics specific to countries as influencing mortgage rates, including enforcement procedures, loan-to-value ratios and fiscal arrangements.

The role of economic shocks (as in the cases of Slovenia, Slovakia and Estonia that respectively adopted the euro in 2007, 2009 and 2011 - around the time of the financial crisis), financial markets and the associated risk appetites of investors, creditworthiness or country specific supply / demand characteristics and institutional factors in influencing convergence of mortgage rates was apparent in this study as no mortgage rate convergence was observed. Note, for example, that in the pre-adoption period, four of this study's five countries had their mortgage rates track direction of the Eurozone average. But in the post-adoption period, characterized by adopting countries' deeper integration with the monetary union, only one country's mortgage rate tracked the Eurozone average.

CONCLUSION

Implications

This study hoped to find insight as to how Croatian mortgage rates would respond to euro adoption. However, the findings of this study did not lead to any specific conclusion due to the lack of any consistent statistically significant results. Therefore, there is no evidence that the level of Croatia's mortgage rates will converge with the Eurozone average in the first five years of Eurozone membership. Moreover, no specific conclusion can be drawn regarding the direction of movement of

Croatian mortgage rates vis-à-vis the Eurozone average. This means that the findings cannot indicate if Croatia's mortgage rates actually move in the same or opposite direction of the Eurozone average after the euro adoption. Hence, it is impossible to estimate the future behavior of mortgage rates in Croatian.

Additional research could be directed at examining the decreased degree of tracking between adopting countries' mortgage rates and the Eurozone averages after adoption; why did a larger number of countries have their mortgage rates track the Eurozone average in the pre-adoption period? An additional contribution to the scientific research of this field would be to compare the degrees of convergence across different loans such. Albertazzi et al. (2019), for example, note that fixed rate mortgages make up a large number of mortgages in the Eurozone. Research into these loans might produce different convergence results.

Limitations

One limitation of this paper is that only one type of mortgage was used as the unit of analysis. As stated above, it could be the case that other types of loans perform differently in regards to convergence with the Eurozone average. To be more specific, it could be that the mortgage rates examined in this study converge slower when compared to other mortgages' rates. Besides the potential lack of representativity of the loan type observed, the observed time period of this study may be inadequate, that is, the 5-year pre-adoption post-adoption periods. If mortgage rates converged sometime after this 5-year period, this would be missed by this research. Lastly, a limitation could be the quality of the instrument and research method and the sophistication of the statistical analysis utilized in this paper. Other papers in this field have used statistic models such as VAR or even more complex ones, which perhaps suggest that a complex phenomenon as convergence cannot be researched with the statistical methods used in this paper.

Final remarks

Despite the apparent limitations, the importance of this research is multi-fold. This paper may be viewed as a first step towards researching interest rates on loans that directly affect households and non-banking businesses, as opposed to focusing on financial and global markets. In addition, the lack of a firm conclusion as to what happens with regards to the interest rates observed is not meaningless, as it tells us that not every country will experience convergence and it incentivizes further research. This paper contributes to the scientific economics research in the area of the interest rates convergence in the eurozone and additionally introduces Croatia in that context.

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APPENDIX

Country	Correlation coefficient and p-value
Latvia	$r = .094, p = .545$
Lithuania	$r = .856, p = .000$
Slovakia	$r = .687, p = .000$
Slovenia	$r = .658, p = .000$
Estonia	$r = .713, p = .000$

Table 1. *Convergence in terms of mortgage rate tracking in the pre-adoption periods*

Country	Correlation coefficient and p-value
Latvia	$r = .305, p = .044$
Lithuania	$r = -.708, p = .000$
Slovakia	$r = .289, p = .025$
Slovenia	$r = .155, p = .340$
Estonia	$r = -.246, p = .111$

Table 2. *Convergence in terms of mortgage rate levels in the pre-adoption periods.*

Country	T-value pre-adoption	P-value pre-adoption	T-value post-adoption	P-value post-adoption
Latvia	18.13	$p = .000$	20.51	$p = .000$
Lithuania	6.12	$p = .000$	10.96	$p = .000$
Slovakia	31.71	$p = .000$	25.21	$p = .000$
Slovenia	9.14	$p = .000$	19.11	$p = .000$
Estonia	7.79	$p = .000$	5.89	$p = .000$

Table 3. *Overview of the 1-sample t-test results for all observed countries in the pre-adoption and post-adoption periods.*

Country	Correlation coefficient	p-value
Latvia	$r = -.773$	$p = .000$
Lithuania	$r = -.887$	$p = .000$
Slovakia	$r = .106$	$p = .415$
Slovenia	$r = .709$	$p = .000$
Estonia	$r = .263$	$p = .071$

Table 4. *Convergence in terms of mortgage rate tracking in the post-adoption periods.*

Country	Correlation coefficient and p-value
Latvia	$r = .528, p = .000$
Lithuania	$r = .917, p = .000$
Slovakia	$r = .190, p = .142$
Slovenia	$r = .188, p = .148$
Estonia	$r = .040, p = .788$

Table 5. *Convergence in terms of mortgage rate levels in the pre-adoption periods.*

THE STRA.TECH.MAN APPROACH: EVIDENCE FROM THE WINE INDUSTRY IN GREECE USING PLS

Falaras, Athanasios; Moschidis, Odysseas

University of Macedonia, Department of Business Administration

ABSTRACT

The purpose of this study was to confirm the Stra.Teh.Man model in the case of wine industry, where Greece belongs to the top eight wine producing countries. The Stra.Tech.Man indicates that business strategy, business' ability to absorb new technology and management affect business' growth. This model is connected with innovation, where definitions from Oslo Manual were applied. So as to fulfill this goal, a research took place across Greece via an e-questionnaire, using the quota sampling technique. In summary, answers from 119 were collected and the data were analyzed through the software SMART-PLS, using formative indicators and a second order latent variable. The results extracted interesting information regarding the low pricing strategy and a distinction took place between process and organizational innovations that take place in this sector and created useful information for the further enrichment of the proposed theory.

Keywords: Strategy, Technology, Management, Innovation, Wine, Greece, PLS.

INTRODUCTION

The primary goal of this paper is to confirm the Strategy – Technology – Management (Stra.Tech.Man) theory in the case of wine industry in Greece. Due to this fact, a research took place across Greece via an e-questionnaire. Collected data were analyzed through SMART – PLS software.

Describing the SMEs' entrepreneurial status quo, the average SME in Greece could be called as "unit centered". Decision making relies heavily on business owners' choices. Planning does not exist and business's actions are spontaneous. Unit centered businesses are described by a lack of continuous and targeted strategy. The assimilation of new technology output is not systematic. A series of Greek SMEs have not yet utilized various technology tools; so, they are technologically outdated. Also, resources management is exclusively based on practical experience (Vlados and Chatzinikolaou, 2019; Vlados, 2021). The Stra.Tech.Man approach proposes actions that promote business growth.

Wine industry is an important part of the European economy. It composes 65% of worldwide production and 57% of worldwide consumption. Nevertheless, it faces a series of challenges, like lack of capital access and difficulty in exporting produced products, which are some of the major industry's challenges. However, there are entrepreneurs with a right mindset that still succeed (Falaras and

Moschidis, 2021). Nowadays Greece is included in the top eight wine producing countries (Behmire *et al.* 2019). Despite the fact that Greece is one of the leading countries in the wine industry, it has not yet developed its full capabilities and it is suggested that wine exports could boost wine production (Vlachos, 2017). On the one hand, Greek SMEs, in addition to common European SMEs' issues, also have to face the problematic Greek taxation system (Lois *et al.*, 2019). On the other hand, the Greek climate and soil can foster the quality of Greek wine.

LITERATURE

The Stra.Tech.Man Approach

The basic concept on Stra.Tech.Man is that business growth depends on a targeted and definite strategy, on a business's ability to absorb new technology in its processes and decent management. A successful strategy includes the business's ability to set specific goals. To create mechanisms that will realize changes in the external business's environment. To improve the understanding of internal business's environment. To use SWOT analysis. To clarify a business's tactics, which are included in every strategy. During the last years a series of wine businesses have introduced new varieties of wine in the Greek market (Bonarou and Tsartas, 2019). In addition, price affects wine choice by consumers in Greece (Apostolakis *et al.*, 2016; Pampouktsi *et al.*, 2020). So, a low-pricing strategy could be an alternative strategy. A series of business strategy actions could be identified (European Commission, 2018). These are "focus on introducing new goods or services", "focus on low price", and "focus on customer-specific solutions".

A successful adoption of technology output includes understanding of a business's technological needs and capabilities. A modern business has developed mechanisms that monitor technological advances and creates a planning so as to assimilate them (Vlados, 2019, 2021). Regarding management, a business's schedule should not be overburdened and meritocracy should be the criterion for appointing workforce. A business needs a leader who cares for continuous workforce education and promotes teamwork (Vlados, 2019, 2021). So it should avoid people's characteristics like narcissism and overconfidence (Seifzadeh *et al.*, 2020). Motives should be provided to employees and their performance should be rewarded (Vlados, 2019, 2021).

Innovation

"Innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations" (OECD, 2005). There are four types of innovations. Product, process, organizational and marketing innovation. Product and process innovation compose technological

innovation, while organizational and marketing innovation compose non-technological/service innovation (OECD, 2005; Tsoukatos *et al.*, 2018). Innovation and extroversion are the main factors that make a business competitive. Especially innovation has a strong effect on business competitiveness (Tsoukatos and Voulgaris, 2014; Tsoukatos *et al.* 2015). It is diffused on every business's aspect (Vlados and Chatzinikolaou, 2019; Vlados, 2021). It is also included in the Stra.Tech.Man approach. Actually technology makes business processes more effective (Bygstad and Øvrelid, 2020). So, the technology dimension of the Stra.Tech.Man approach expresses process innovations. Besides, many improved management practices highlight organizational innovations (Sung and Kim, 2021). Thus, the "technology" and "management" dimensions suggest process and organizational innovation practices. Based on the Community Innovation Questionnaire (CIS) there are the following process and organizational innovations (European Commission, 2018):

Process innovations	Organizational innovations
New or significantly improved methods of manufacturing for producing goods or services	New business practices for organizing procedures (i.e. first-time use of supply chain management, business re-engineering, knowledge management, lean production, quality management, etc.)
New or significantly improved methods of manufacturing for producing goods or services	New methods of organizing work responsibilities and decision making (i.e. first-time use of a new system of employee responsibilities, team work, decentralization, integration or de-integration of departments, education/training systems, etc.)
New or significantly improved methods of manufacturing for producing goods or services	New methods of organizing external relations with other enterprises or public organizations (i.e. first-time use of alliances, partnerships, outsourcing or sub-contracting, etc.)

Table 1. *Process and organizational innovations according to CIS*

Innovation in wine industry

Various innovations take place in the wine industry. Product quality assists business to keep up with the course of external environment that continuously changes (Ismyrlis and Moschidis, 2015a). In terms of accounting, wine businesses are profitable but they deal with the issue of high operating costs, so they appear negative net income (Papathanasiou *et al.*, 2019).

Regarding innovation, quality costing is a process innovation that can improve a product's quality and decrease production cost. It is applied in the food and beverage industry in Greece (Chatzipetrou and Moschidis, 2017). Furthermore, Quality Management Systems (QMS) have not been applied extensively in Greece, but they could increase product value by adding value fostering its brand name (Ismyrlis and Moschidis, 2015b). As it is stated, technological utilization supports branding (Vrontis *et al.*, 2020). Moreover, e-commerce keeps increasing its volume (Vrontis and Christofi, 2020; Moschidis and Thanopoulos, 2021), so home delivery is becoming a preferable way of delivering agricultural products, especially during the quarantine period (Milioti *et al.* 2020). Also, wine-producing businesses are

improving the way they distribute their products so as to reduce the release of gasoline and petroleum, thus becoming more eco-friendly (Dede *et al.*, 2020). In addition, in wine packaging production line takes place the reliability, availability and maintainability (RAM) analysis of machines used in the wine production process (Tsarouhas, 2018).

In the winery industry, initials take place to connect wine businesses, universities and the public sector (Festa *et al.*, 2019). 60% of wine businesses see positive potential in this cooperation (Mamalis *et al.*, 2018). Decision making is an important business aspect and various web apps enhance in this matter (Moschidis *et al.* 2018). Wine tourism is a form of tourism that fosters both the wine industry and the tourism sector of Greece, while tourists' in situ experience is regarded very important (Karagiannis and Metaxas, 2020). Regarding direct sales, they create opportunities for innovation on logistics (Festa *et al.* 2019). Regarding Supply Chain Management (SCM), multi-level approaches have been developed due to increased requirements of external business environment. Effective SCM increases a business's competitiveness and sustainability (Iakovou *et al.*, 2015). A firm has to deal with large data that can be transformed into information, which offers valuable knowledge. It is a critical issue for a business to manage every piece of information that is produced (Vrontis *et al.* 2019). Various Customer Relationship Management (CRM) software has been developed for that reason. CMR helps businesses to estimate profitability of individual accounts, reduce costs and enhance relationship value between customers and businesses. It was tested that CRM can benefit firms engaged in wine tourism (Belias *et al.*, 2018). An important innovation applied in wine industry is precision agriculture. It consists of various technologies that help businesses optimize their farm management by reducing inputs and maximizing outputs (Falaras and Moschidis ; Sarri *et al.*, 2020). Innovation also applies in human resources. Companies customize to finding suitable workforce for companies which they cooperate (Roubaud *et al.* 2019). Moreover, contract farming is a way for wine businesses to extend their operations by cooperating and outsourcing part of their grape production (Mishra *et al.* 2019).

METHODOLOGY

Model construction

Based on the demonstrated literature, the following hypotheses were constructed:

H1. Business strategy is composed of the measures of introduction of new goods, low-pricing, and customer-specific solutions.

H2. A series of indicators compose a business's ability to absorb new technology. A list of sub-hypotheses follows.

H2.1. New or significantly improved methods of manufacturing for producing goods or services compose a business's ability to absorb new technology.

H2.2. New or significantly improved logistics compose a business's ability to absorb new technology.

H2.3. Delivery or distribution methods for your inputs, goods or services and new or significantly improved supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing compose a business's ability to absorb new technology.

H3. A series of indicators compose management. A list of sub-hypotheses follows.

H3.1. New business practices for organizing procedures (i.e. first-time use of supply chain management, business re-engineering, knowledge management, lean production, quality management, etc.) compose management.

H3.2. New methods of organizing work responsibilities and decision making (i.e. first-time use of a new system of employee responsibilities, team work, decentralization, integration or de-integration of departments, education/training systems, etc.) compose management.

H3.3. New methods of organizing external relations with other enterprises or public organizations (i.e. first-time use of alliances, partnerships, outsourcing or sub-contracting, etc.) compose management.

H4. Business strategy positively and significantly affects business growth.

H5. A business's ability to absorb new technology affects business growth positively and significantly.

H6. Management affects business growth positively and significantly.

H7. A business's growth is composed of all the demonstrated indicators.

Data collection

The population of this research were wineries in Greece. So as to have a clear view of the number and geographical distribution of wineries in Greece, a personal request was sent to the Hellenic Statistical Authority (ELSTAT). The request was approved and the wineries' census was provided. The geographical regions of the research were mainland Greece and Crete.

To fulfill this purpose an e-questionnaire was created to collect the data. In the questionnaire the purpose of this study was referred and the anonymity of answers was stated. There were nine questions; three of them regarding business strategy, three of them regarding process innovation and the rest of them concerning organizational innovation. Question formulations and the possible answers were exactly the same as the ones used in the Community Innovation survey (CIS), a research conducted regularly by Eurostat (European Commission, 2018).

Regarding the data collection, there is no database to contain winery contact details in Greece; so the quota sample was chosen as the sampling technique and there were region targets based on ELSTAT's provided data. To find wineries and reach out to them to answer the questionnaire, commercial websites were used. Wineries were called over the phone and they were asked to have a winery representative answer the questionnaire. If the asked winery agreed to participate, the questionnaire link was sent to the winery's email. In summary, 119 answers were collected. As the population

number is relatively small, a significant population proportion was collected. The following table demonstrates the population's representativeness.

Region	Number of wineries (code NACE Rev2 = 1102)	Percentage % of total wineries	Number of collected wineries	Percentage % of collected sample
Eastern Macedonia and Thrace	27	5 %	10	8 %
Central Macedonia	66	12 %	18	15 %
Western Macedonia	23	4 %	3	3 %
Epirus	8	1 %	0	0 %
Thessaly	32	6 %	14	12 %
Central Greece	74	13 %	13	11 %
Western Greece	45	8 %	8	7 %
Peloponnese	159	29 %	32	27 %
Attica	75	14 %	14	12 %
Crete	40	7 %	7	6%
Summary	549	100 %	119	100

Table 1. Comparison of population provided by ELSTAT vs collected sample

RESULTS

Descriptive statistics

Latent variable	Formative indicator	Answers
Stra = Business strategy	NPR = Introduction of new goods or services	Not important (14%) Low importance (32%) Medium importance (38%) High importance (17%)
	LPR = low-pricing	Not important (12%) Low importance (16%) Medium importance (33%) High importance (39)%
	PPE = customer-specific solutions	Not important (22%) Low importance (28%) Medium importance (30%) High importance (20%)
Tech = Business's ability to absorb new technology	OMP = manufacturing for producing goods or services	Yes (24%) No (76%)
	LOG = logistics, delivery or distribution methods for your inputs, goods or services	Yes (36%) No (64%)
	PSU = supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing	Yes (31%) No (69%)
Man = Management	NEP = organization of procedures	Yes (30%) No (70%)
	NMO = organizing work responsibilities and decision making	Yes (42%) No (58%)
	OER = organizing external relations with other enterprises or public organizations	Yes (27%) No (73%)

Table 2. Strategy, Technology and management answers

Low pricing is regarded as the most important strategy, while the rest of them are considered of medium significance. Descriptive statistics indicate that roughly 1/3 of the total sample is able to absorb new technology and apply new or improved management practices. The most popular practice regards methods of organizing work responsibilities and decision making.

Data processing

Based on the demonstrated literature a model was created, which consisted of formative indicators. Data were processed using the SMART-PLS software. Due to the use of formative indicators, the bootstrapping algorithm was chosen to process the data. However, the model had to be validated. To fulfill this purpose two steps were applied. The first one was to perform a collinearity diagnostic to secure that the formative indicators don't overlap each other. The second one was the bootstrapping procedure by choosing the factor weighting scheme to see if the indicators have a significant effect on the latent variable. After that, the bootstrapping procedure was applied again, choosing the path weighting scheme to check the significance of every independent latent variable to the dependent latent variable. The dependent variable is a second order latent variable composed of all the indicators that were the base for this model. The subsamples of the referred methods were set to 2,000 and the level of significance was set to 0.05 (which means p-value lower than 0.05) (Garson, 2016).

Variance Inflation Factor (VIF)	
Indicator	Value
LPR	1.068
OMP	1.078
LPR	1.124
LOG	1.180
PSU	1.217
OMP	1.223
NPR	1.233
OER	1.257
PPE	1.280
NPR	1.286
PPE	1.293
PSU	1.318
NEP	1.372
OER	1.425
LOG	1.445
NEP	1.516
NMO	1.553
NMO	1.770

Table 3. *Collinearity Statistics*

All the VIF values are lower than 3.0. This means that the selected indicators do not overlap (Garson, 2016). Therefore, the first validation step is successfully applied.

Relation	P-value
LPR -> Stra	0.000
OMP -> Business's growth	0.000
OMP -> Tech	0.001
LPR -> Business's growth	0.002
LOG -> Tech	0.003
LOG -> Business's growth	0.003
NMO -> Business's growth	0.007
NMO -> Man	0.008
OER -> Business's growth	0.024
OER -> Man	0.028
PSU -> Business's growth	0.116
PSU -> Tech	0.130
NEP -> Business's growth	0.201
NEP -> Man	0.214
NPR -> Stra	0.234
NPR -> Business's growth	0.263
PPE -> Stra	0.546
PPE -> Business's growth	0.559

Table 4. *Outer weights*

The p-value demonstrates that only LPR (low pricing) is significant in the business strategy construction. So, the variable Stra is actually the measurable variable LPR. Regarding Tech, OMP (manufacturing) and LOG (logistics, delivery or distribution methods) are significant in the Tech variable construction. Also, NMO (organizing work responsibilities and decision making) and OER (organizing external relations with other enterprises or public organizations) are the ones that significantly construct Man. Therefore, all the referred indicators successfully construct the latent variable business's growth.

Relation	P-value
Stra -> Business's growth	0.000
Man -> Business's growth	0.000
Tech -> Business's growth	0.000

Table 5. *Path coefficients*

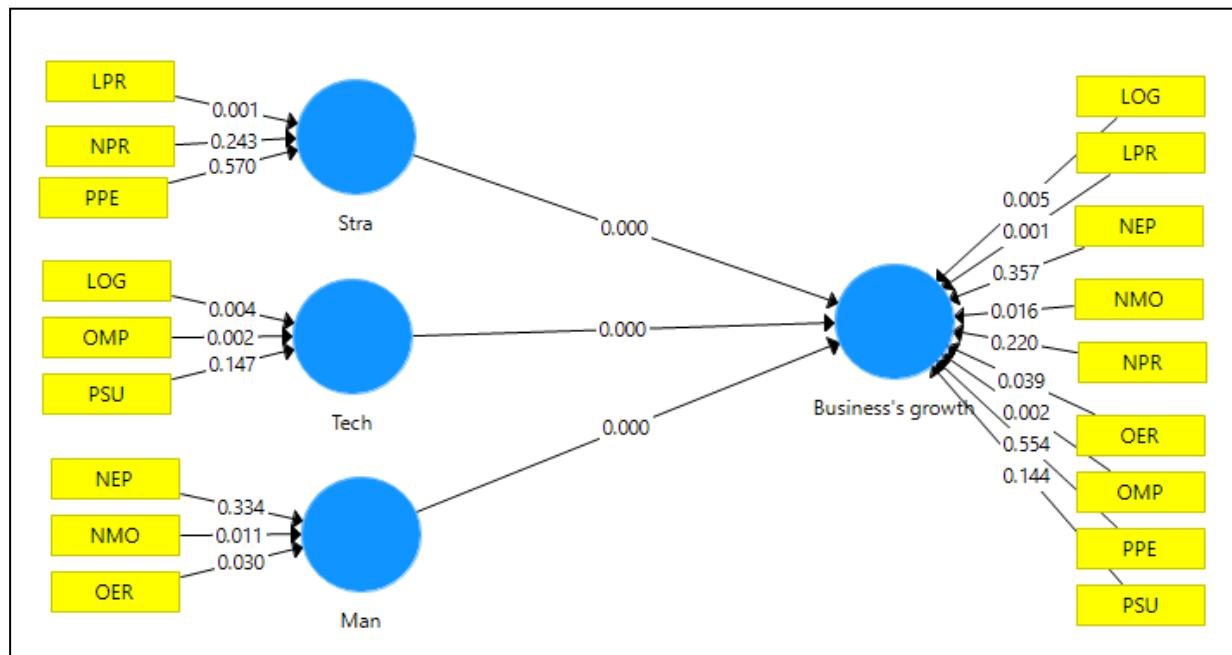


Figure 1. Model representation including p-values

The results demonstrate that a business's ability to absorb new technology and management affects business growth positively and significantly. Also, low pricing strategy positively and significantly affects business's growth.

DISCUSSION AND CONCLUSIONS

The results demonstrate a series of facts for the wine industry in Greece. Although H1 is not confirmed, low pricing is considered as an important strategy on business growth. This comes to compliance with the literature, where it was indicated that wine price affects consumers' choice (Apostolakis *et al.*, 2016; Pampouktsi *et al.*, 2020).

The results also demonstrate that H2.1 and H2.2 are confirmed, as innovations on OMP (manufacturing processes) and LOG (logistics, delivery and distribution methods) compose a business's ability to absorb new technology. These results confirm the demonstrated literature, where innovations like quality costing, e-commerce or RAM analysis have been observed (Chatzipetrou and Moschidis, 2017; Tsarouhas, 2018; Moschidis and Thanopoulos, 2021). The H2.3 was not confirmed in the case of Greek wineries. Therefore, a business's ability to absorb new technology is composed of innovations on OMP and LOG.

Hypotheses H3.2 and H3.3 are confirmed. NMO (new methods of organizing work responsibilities and decision making) and OER (new methods of organizing external relations with other enterprises or public organizations) statistically and significantly compose management on the studied case. Such innovations have been registered, like apps on decision making, contract farming or cooperation with universities (Moschidis *et al.*, 2018; Festa *et al.*, 2019 a; Festa *et al.* 2019 b; Mishra *et al.* 2019). H3.1 was

not confirmed as NEP (organization of procedures) did not statistically and significantly compose management. So, in the case of Greek wineries, management is composed of NMO and OER.

The H4 is not confirmed, as business strategy did not stand as a latent variable. Nevertheless, interest output was extracted, as low pricing showed off as an important business strategy, as H1 demonstrated, and one of the most significant indicators on the wine industry.

Regarding the initial hypotheses, the H5 and H6 are fully confirmed. Tech and Man positively and significantly affect business growth, confirming an important part of the proposed theory (Vlados, 2019, 2021; Vlados and Chatzinikolaou, 2019). Finally, H7 is partially confirmed. Business growth is successfully confirmed as a latent variable, composed of OMP, LPR, LOG, NMO and OER.

In conclusion, the initial goal of this study was to confirm the STRA.TECH.MAN theory. Based on the results, the theory is confirmed. Therefore, a business engaged in the wine industry should focus on low pricing and seek to innovate on the demonstrated innovation types, which are manufacturing process, logistics, delivery, distribution, organizing work responsibilities, decision making and organization of the business's external relations. These domains were also present in the literature section, where various relevant examples were provided. Especially innovations on the manufacturing process could deal with the issue of operating cost that was addressed in the literature section.

IMPLICATIONS

This research, apart from the theoretical confirmation of the STRA.TECH.MAN approach, contributed to determinants of business growth. In addition, there are important implications. A series of business strategies were not confirmed during the analysis step, except for low pricing, which highlights as an important business strategy in the wine industry in Greece. A research implication is the test of a set of different business strategies. There is also the possibility to enrich and test the model in future studies. The enrichment regards not only a business's internal environment, but also its external one. It would also be interesting to study other types of innovations (product and marketing) which were not included in this study. Finally, this research was engaged with Greek wineries, as Greek wine is a traditional and lucrative product. Other industry sectors could be studied in future research, giving the opportunity to compare different industries and see if there are any differentiations among them. In this way, it is possible to compose a general model that could comply with almost all industries.

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THE STIMULUS OF THE PURCHASE DEPARTMENT ON THE FIRMS' PERFORMANCES THROUGH THE BOOSTING EFFECT OF INNOVATION AND R&D EFFECTIVENESS

Fiorini, Niccolò; Pucci, Tommaso; Casprini, Elena; Zanni, Lorenzo

Department of Business and Law, University of Siena, Siena, Italy

ABSTRACT

Purpose – This paper aims to explain how the purchasing department (PD) fosters the firm's performances through a flow involving different sources of innovation, technology orientation and R&D effectiveness.

Methodology/approach – thanks to a survey to Italian companies of the chemical industry, we investigated upon the PD's role, performance, innovation results, and technology orientation. Given the role of the respondents, we had a clear portrait of the companies and of their path towards innovation and performance's boosts.

Findings – this paper underlines the role of PD as a stimulus to firms' performances. Moreover, it explains the path of that stimulus through the whole value chain. This is possible thanks to the special role of the PD, which is not only a bridge towards the suppliers and, more generally, towards outside stakeholders, but also internally, among different firm's functions. Furthermore, the PD plays an internal bonding and bridging role, stimulating the company via innovation and R&D activities for increasing the performances.

Research limitations/implications – The current study has some limitations. First, the sample size and the single sector considered. Secondly, the focus on one country only. Therefore, future studies could validate our findings in other countries and including more sectors.

Practical implications – Many studies have already underlined the importance and the strategic role of the PD. However, our results suggest giving the PD the possibility (freedom) to stimulate innovation by participating into strategic decisions. Furthermore, we recommend to purchasing managers to exploit more their knowledge, networks, and to exert more their stimulator role.

Originality/value – To the best of our knowledge, this research represents a very first study on this issue. Hence it improves the current knowledge of both academics and practitioners by proposing how the PD could affect performances and act as a stimulus to firm's performances.

Keywords: purchase department, R&D, performance, innovation, supply chain.

INTRODUCTION

Many scholars assess the importance of the supply chain (SC) (Lamming, 1993; Carter and Ellram, 2003) and, therefore, of suppliers, for companies in innovation, in creating value for the company (de Hemmer Gudme, 2017), and in gaining a competitive advantage (Petersen *et al.*, 2005; Cousins *et al.*, 2006). Thus, several studies wonder what the role of the purchasing department (PD) should be (Jain *et al.*, 2009; Sheth *et al.*, 2009; Paesbrugghe *et al.*, 2017). The PD is often considered as cost saving oriented division, which is not involved in innovation issues and sometimes it is even considered as obstacles to innovation processes (Kurpjuweit *et al.*, 2018). Most important, other scholars enlighten the importance of purchasing as a competitive apparatus (among others, see: Speckman, 1989; Ellram and Carr, 1994,). Some (see, among others: Haynes and Wheelwright, 1984) still consider the competitive advantage coming from cost, time and suppliers' network, while others (Ward *et al.*, 1990; Krause, 2001; van Echtelt *et al.* 2008; Awwad, and Akroush, 2016) include innovation and new product development (NPD). Despite this, to the best of our knowledge, there is a lack of studies examining the link between PD and its comprehensive role with SC, R&D, technology and innovation, and performances. Thus, the aim of this paper is to empirically investigate the deep overall role of the PD within the company. In particular, we want to understand the path of the PD in fostering the firm's performances, involving different sources of innovation, technology orientation and R&D effectiveness. This to add to the current literature, filling an existing gap, an explanation on how PD contributes in company's innovation and in enhancing performances.

Therefore, we asked ourselves:

1. *Does PD matter in improving firm's performances?*
2. *Is the PD a driving force for the other value chain's functions?*
3. *Through which path does the PD influences firm's performances?*
4. *From where does it come the stimulus to performance?*

We decide to use a survey to collect data about the role of the PD, the impact of that department and, more generally, of all the departments of the company, on innovation and performances. The paper is structured as follows. The next section proposes a theoretical background about the issues involved in our reasoning. Then we present our conceptual model and subsequently we display the results. The last session is about discussion and conclusion, where the theoretical contributions, implications and limitations are presented.

THEORETICAL BACKGROUND

Several studies have analysed the PD through an *organisational* lens (Johnson and Leenders 2006; Kim 2007; Juha and Pentti 2008; Driedonks *et al.* 2010:).

Among them, some have focused their attention on innovation (Luzzini and Ronchi, 2011), others have studied the influence of product complexity on the PD structure (Kotteaku *et al.* 1995) or on product development (Lakemond *et al.*, 2001), some others have looked to PD and SC management practices in specific sectors, such as luxury (Luzzini and Ronchi, 2010) and health care (Sidselrud, 1984).

Carr and Pearson (2002) state that the involvement of PD in a strategic context leads to benefits in terms of performances, also organisational ones (Viale, 2019). In recent years many scholars have reconsidered the importance of the PD within the firm, including them while measuring performances (Beamon, 1999; Gunasekaran *et al.*, 2001; Axelsson *et al.*, 2002; Rafele, 2004; Fletcher and Polychronakis, 2007). The current literature shows several contributions about PD and performances and scholars have analysed this from different point of views. Some considered financial performances (Carr and Pearson, 1999; Chen *et al.*, 2004; Ellram and Liu, 2002), while others also include commercial performances for investigating on business performances (i.e. commercial and financial performances together: Gonzalez-Benito, 2007). Others consider purchasing and cost saving performances (Caniato *et al.*, 2014), operational performances (Ambekar *et al.*, 2020), manufacturing performances (Narasimhan and Das, 2001), and also environmental ones (Large and Thomsen, 2011). Not all the studies focus their attention to financial or business-related performances, among them it is worthy to mention Large and Thomsen (2011) that considered environmental performances.

Some scholars state that procurement is a critical tool for the performances of the company (Kapisch *et al.*, 2016). Servajean-Hilst (2017) claims that organisation and performances are “strongly linked”, hence the function of the “innovation-purchasing” is critical for a better result in terms of performances and relationships linked to innovation. Starting from this, it is therefore important to analyse the literature about innovation and performances.

Many studies underline how *innovation* is positively correlated with the economic performances of the company (see, among others: Romer, 1990; Nadiri and Prucha, 1993; Aghion and Howitt, 1998; Mairesse and Mohnen, 2001; Santoro *et al.*, 2019) or, to a larger extent, with several measures of firm performances (Arundel *et al.*, 2003). Klomp and van Leeuwen (2001) underline how (process) innovation directly strengthen company's sales performances and employment growth. Focusing our attention to PD, several scholars have pointed out its role in developing new products (Atuahene-Gima, 1995; Nijssen *et al.* 2002; van Echtelt *et al.* 2008; Schiele 2010), underlying its important contribution in NPD (Bonaccorsi 1992; Hakansson and Eriksson 1993; Wognum *et al.* 2002; Cassia and Magno, 2019). Additionally, von Haartman and Bengtsson (2015) underline that, when purchasing globally, the role of PD is “crucial for product innovation” and therefore firms should then consider product innovation a first concern for their PD.

According to Lewis *et al.* (2010) dynamic process is needed to coordinate R&D and PD, while Picaud-Bello *et al.* (2019) pointed out how PD might help R&D department in innovation if it renews and regenerates purchasing capabilities. Melander and Lakemond (2014) found that PD might support R&D facilitating innovation, especially under technological uncertainty. PD can reveal its role as a critical department for innovation and, more specifically, in R&D activities through jointly R&D and PD activities (Oh and Rhee, 2010), or thanks to the coordination of the prototyping activities carried out by purchasing, R&D and production departments (Van Echtelt *et al.*, 2008). Furthermore, PD might have the role of informing, prioritising and mobilising R&D, and production, department (Wynstra *et al.*, 2003).

Hence, we presuppose the importance of *R&D* in gaining the company's tasks and, in addition, the *connection between PD and R&D and the involvement of the PD in the innovation process* and so in contributing to reach the defined performances.

CONCEPTUAL MODEL

As shown in the previous section, the literature has extensively analysed the contribution of the PD in helping the firm towards its innovation path; nevertheless, it is still unexplored how this happens. This is what we would like to examine.

Much attention has been attracted by the relation between *technology orientation* and *innovation* (see, among others: Gatignon and Xuereb 1997; Jeong, Pae, and Zhou 2006; Gao, Zhou, and Yim, 2007). Technology orientation is positively correlated with innovation (Zhou *et al.*, 2005), even if sometimes excessive technology orientation might lead to unsuccessful innovation (Kleinschmidt and Cooper 199; Hortinha *et al.*, 2011). Since many scholars have analysed these interesting relations and have underlined the tight connection between technology orientation and innovation, we can corroborate that technology orientation is related with innovation.

Many scholars have strengthened the link between *supply chains (SCs)* and *innovation* (see, among others: Roy *et al.*, 2004; Ageron *et al.*, 2013; Golgeci and Ponomarov, 2013; Narasimhan and Narayanan, 2013; Oke *et al.*, 2013; Zimmermann *et al.*, 2016). SC is considered a crucial player in the value creation process operated by a firm and its customers (Narasimhan and Narayanan, 2013), especially because this makes possible to exploit resources not available in the company (Rese *et al.*, 2013, Saenz *et al.*, 2014).

Thus, we take for granted that the *SC is a source of innovation*.

The role of PD

According to the literature, purchasing could be *strategic* or *nonstrategic* (Carr and Pearson, 2002). When strategic, the PD is considered a critical resource (Keough, 1993). Servajean-Hilst (2017) underlines the importance of purchasing functions in innovation, especially at the micro-level.

An interesting research question about purchasing and strategy is proposed by Cousins (2005). He focuses his attention on the strategic goals of the company rather than the strategic consideration of the PD. Only considering itself as a differentiator the company could then appoint the PD as a strategic tool and hence having a coordination of supply issues and overall strategic decisions. However, the role of the PD is still not well defined, since it might not act as full coordinator, while it might be more likely to involve some members of the PD in the product development team for innovation (Lakemond *et al.* 2001).

Considering the bridging function and the strategic role of the PD underlined by the literature analysed above, we believe the PD to be the starting point of the whole innovation path. Hence, we want to empirically test whether the whole process begin with a stimulus originating from the PD.

The PD has boundary-spanning function (Hallenbeck *et al.*, 1999; Azadegan, *et al.* 2009). The literature suggests that the PD is good in acting as a bridge both externally (McIvor, 2009; Van Weele, 2009; von Haartman and Bengtsson, 2015) and internally (Cousins *et al.*, 2006)). Thanks to this double role, the PD can bring knowledge, technology and innovation in the company and then guide other departments in choosing the best option (Wynstra *et al.*, 2003). PD can also manage internal sourcing processes, thanks to the thorough preparation of its managers, contributing to the innovation outcomes (Luzzini *et al.*, 2015).

PD can be involved at several different levels, pertaining to four different managerial areas: product design, discussion of old/new projects with suppliers, guidelines' definition with the R&D department, directly putting in practice the decision of the general management about insourcing/outourcing NPD (Wynstra *et al.*, 2001). This reflects the integrative role also mentioned years ago by Carr and Smeltzer (1997). In case of technological complexity, PD's role augments its importance. While developing new products, companies might set organisational mechanisms to both have internal and external connections between the main functions. In this case the PD can play a relevant role, thanks to its engineers that might act as liaisons between functions (Wynstra *et al.*, 2001)

Could we say that PD plays the same role in every company? Indeed, not all the PDs, and therefore all the companies, act in the same way. A PD acting as an equal partner with other departments augments the firm's success, but only in some companies (Luzzini *et al.*, 2015). This might depend on the employees' capabilities (Reck and Long, 1988), but also on how the PD is valued by the company itself: the more essential is considered, the more it supports company's strategic processes and NPD (Patrucco *et al.*, 2017). PD involvement can change dramatically from one

company to another. Some could give PD a strategic recognition, other a more clerical role, or an integrative or a supportive one (among others: Burt and Pinkerton, 1996; Carr and Smeltzer, 1997; Rozemeijer, 2008). As reported by Paesbrugghe *et al.* (2017) (based on Reck and Long, 1988), some scholars found four different stages of the PD: passive, independent, supportive, and integrative. Hence not only we have variations among the type of companies, but also in the stage of the department itself when dealing with PD degree of independence. This affects the ability of the PD to act as a stimulus to innovation.

From the analysis of the current literature we know that the PD involvement is fruitful for the company. However, to the best of our knowledge, there is a lack in understanding how the PD could be a stimulus for innovation and hence for improving firm's performances.

Therefore, the peculiar role of the PD is the starting point of the whole path, hence being the stimulus for increasing performances. Then, considering the theoretical background analysed in the previous section, we believe it is better to build our pathway backward: starting from the role of the PD we move forward in the direction of company's performances. By doing this we can spell out that the involvement of the PD means that the role of the SC as source of innovation has effect also internally to the firm and, consequently, that it affects technology orientation, influences the R&D thanks to the link between them and PD, and hence firm's performances. This because we believe the stimulus originates in the PD.

Therefore, the conceptual model, built on the previous literature review, is presented in Figure 1.

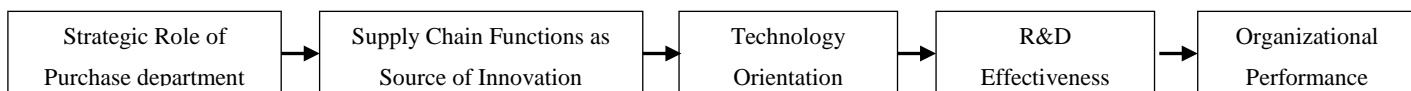


Figure 1: *Conceptual Model*

METHODOLOGY

We collected information about structural and strategic nature of the companies and the role of the PD in the innovation processes through a survey. The sample was composed by 131 companies based in Italy operating in the chemical industry.

The questionnaire included questions on PD's role, performance, innovation results, and technology orientation and was mainly answered by entrepreneurs, senior managers or the equivalent.

The measure *Strategic Role of Purchase department*, with which we investigate the role of the PD is new since this matter has never been analysed, to the best of our knowledge, by any previous research. This represent the novelty of our research.

Table 1: Measures Description and Properties

Measure	Item Description*	Sources
Organiz. Performance (five-point likert scale) $\alpha = 0.824$ AVE = 0.625	Please rate your firm's overall performance in the last three years with respect to 1. Its own stated objectives 2. Main competitors' performance 3. Industry's performance To which degree, during the last three years, has the R&D function of your company reached its tasks in terms of: Con quale grado negli ultimi 3 anni la funzione di ricerca e sviluppo e/o progettazione tecnica della vostra impresa ha raggiunto i suoi obiettivi in termini di	Petersen et al., 2005; De Luca et al., 2010
R&D Effectiveness (five-point likert scale) $\alpha = 0.866$ AVE = 0.595	1. New innovative project generation; 2. New patents; 3. Quality and relevance of scientific results; 4. Reputation, within the sector, thanks to the obtained scientific results; 5. Production of new knowledge within your market/technological domain; 6. Abilità di attrarre e reclutare nuovi scienziati con alte competenze e conoscenze:	De Luca et al., 2010
Supply Chain Sources of Innovation (five-point likert scale) $\alpha = 0.876$ AVE = 0.548	How much each of the following position or function are crucial in introducing (technological, process related or organisational) innovation within your company? c) Quality manager d) Purchasing manager e) Marketing/sales manager f) R&D manager g) Production manager i) HR manager	Von Hippel, 1988
Technology Orientation (five-point likert scale) $\alpha = 0.872$ AVE = 0.552	With reference to your technology orientation, to what degree do you agree with the following statements: 1. We use sophisticated technologies in our new product development 2. Our new products are always at the state of the art of the technology 3. Technological innovation, based on research results, is readily accepted in our organization 4. Technological innovation is readily accepted in our program/project management	Gatignon and Xuereb (1997), Sainio et al., (2012) and Zhou and Li (2010)
Strategic Role of the Purchase department (five-point Likert scale) $\alpha = 0.742$ AVE = 0.509	To what degree, within your company, the purchasing department: a) Participates in taking strategic decisions made by the top management; b) Participates in inter-functional teams for the executive implementation of the firm's strategies; c) Helps other functions only during negotiation for the purchase of products/material selected by other people in the company.	New

Table 2 displays the correlation between all independent and dependent variables and include some descriptive statistics as well.

For the *Supply Chain Sources of Innovation* we based our background on Von Hippel (1988), maintaining the theoretical basis then adapting it to our model. With this we want to assess which functions/departments are critical in introducing innovation, i.e. act as sources of innovation.

For the *Technology Orientation* we considered the theory presented in Gatignon and Xuereb (1997), Sainio *et al.*, (2012), and Zhou and Li (2010).

To assess the degree of success of the R&D activities based on the goal set by the company, we use the measure *R&D Effectiveness* (De Luca *et al.*, 2010)

Finally, we conceptualize *organizational performance* as the degree to which the company reached (a) its own strategic targets, (b) main competitors' performance, and (c) general industry's performance (similar to: Petersen *et al.*, 2005; De Luca *et al.* 2010).

For all of them we used a five-point likert scale (Likert, 1932). All the Measures Description and Properties are reported in Table 1.

Table 2: Descriptive Statistics and Correlation

	[1]	[2]	[3]	[4]	[5]
[1] Org. Performance	1.000				
[2] R&D Effectiveness	0.163	1.000			
[3] Supply Role	0.286	0.126	1.000		
[4] Technology Orient.	0.299	0.675	0.085	1.000	
[5] Innovation Sources	0.309	0.331	0.212	0.357	1.000
Mean	3.501	2.347	3.593	3.065	3.411
Std. Dev.	0.769	0.932	0.936	1.018	1.049
Min	1	1	1	1	1
Max	5	4.5	5	5	5
No of Obs.	131	131	131	131	125

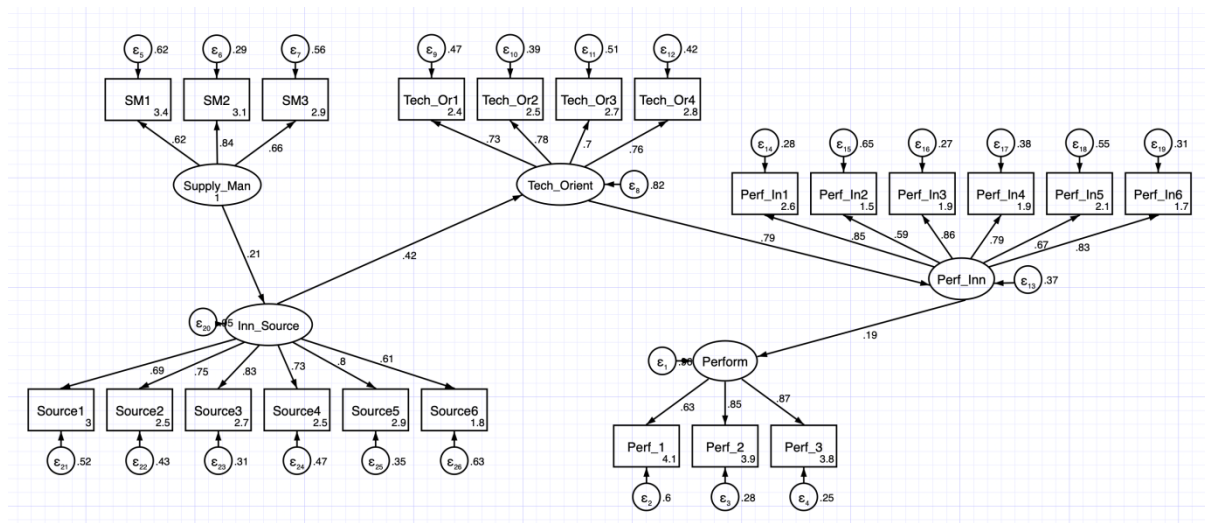


Figure 2: Structural Equation Modelling Results

3. RESULTS

We performed a structural equation modelling path analysis, whose results are shown in Figure 2, while Table 3 presents the results of the path analysis. From that we can confirm the existence of a significative path leading to a positive influence on the organisational performances.

Table 3: Paths Analysis

Paths	Overall model		
	Std. Coeff.	S.E.	z
Org. Performance ← R&D Effectiveness	0.103**	(0.052)	1.97
Innovation Sources ← Supply Role	0.260*	(0.139)	1.87
Technology Orientation ← Innovation Sources	0.445***	(0.118)	3.77
R&D Effectiveness ← Tech. Orient.	0.896***	(0.126)	7.13
χ^2	319.26		
p	< 0.001		
RMSEA	0.068		
CFI	0.918		
SRMR	Not reported because of missing value		

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Method of estimation: Maximum likelihood with missing values

For a better comprehension of the results, we would like to start from *Supply Chain Functions as Source of Innovation*. It has a positive and significant ($p < 0.01$) effect on the *Technology orientation*. Successively, the *Technology orientation* has a positive and significant ($p < 0.01$) effect on the *R&D Effectiveness*, that in turn has a positive and significant ($p < 0.05$) effect on the organisational performances, as predicted. Hence we would like to focus our attention on the first block of this chain: the *role of the PD* has a positive and significant ($p < 0.1$) effect on the *Supply Chain Functions as Source of Innovation*, making possible to have a full significant chain with a positive effect from the beginning to the very end.

DISCUSSION

From our analysis, it came out that the stimulus to the firm's performances originates from the PD. This stimulus starts from one department of the company and has effects into many other ones: not only the R&D department, but also all the others involved in innovation and affected by the impact on performances. How is it possible to have such effective path coming from a sometimes-considered nonstrategic department? Because the PD can work internally exploiting its ability to build a bridge between firm's departments, and also between the company and other SC's players (among others: Luzzini and Ronchi, 2011; Caniato *et al.*, 2014). The literature has underlined how crucial is to

integrate the various functions within the firm (Kahn, 1996; Moses and Ahlstrom, 2009) with effects on performances (Maltz and Kohli, 1996), too. Furthermore, some other scholars have examined the bonding and bridging effect among companies (Kavanaugh *et al.*, 2003; Martínez-Pérez *et al.*, 2016). From our results we can assess that PD plays a *bonding* and *bridging* role internally to the company, as well as other players are impersonating externally in the chain. Thanks to this special role, the PD can stimulate the company via innovation and R&D activities for increasing the performances.

IMPLICATIONS

This research provides implications both for researchers and practitioners. Amongst the practical implications for managers there is the advice to involve more the PD in the strategic decisions of the company and to stress more its intra-firm bonding and bridging role. For purchasing managers, the recommendation is to exploit more their knowledge and links, and to exert more their stimulator role. In such a complex environment where companies have to compete each firm's department must contribute to reach the final goal. It is therefore crucial the PD role in the path towards innovation; purchasing managers should be conscious that this is amplified when the PD plays a bonding and bridging role. Furthermore, they should increase their knowledge and competences to favour this role.

From a scientific point of view, this research represents, to the best of our knowledge, the first one about the role of the PD as the starting point of a chain involving innovation and R&D aiming to increase the firm's performances. This study represents a first step towards a deeper understanding of the new role of PD. Further studies could analyse

Being a very first study on this issue, the research has some limitations. The main limitation concerns the number of surveys collected, due to the small sample. Furthermore, we limited our study to one country (Italy) and one sector (chemical). Hence, further studies on this topic should extend the research to more sectors and several other countries.

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CROSS-CULTURAL MARKET SEGMENTATION SCALE TOWARDS A HIGH- AND LOW-CONTEXT CULTURE SCALE

Friedman, Enav¹; Vescovi, Tiziano²; Weiss-Sidi, Merav¹

¹Ben Gurion University, Israel

²Ca' Foscari University of Venice, Italy

ABSTRACT

Numerous scales that use cultural segmentation are commonly used and applied to the marketing context. Hall's theory of Low and High context cultures is the most relevant for marketing as it focuses on communication style and contextual thinking. Some scholars offered partial measures to his ideas, mainly basing their scales on students' samples, not examining various countries, not translating the questionnaires into the native's language, or taking a Western point of view in phrasing the items. This paper aims to develop a reliable and valid scale that can capture Hall's theory when dealing with other's scale limitations.

In four studies (n= 1285) we gain empirical support for Hall's communication and contextual dimensions. Study 1 aims at identifying the most relevant items to distinguish between two populations (American and Chinese) respectively deemed to be LC and HC; study 2 aims at checking the predictive validity of the scale with a test with samples from both populations; Study 3 extends the predictive validity test to three populations adding an Israeli sample; study 4 examines the preferences of individuals from both countries for ads for watch and fridge with a social claim.

The scale was reliable and valid as it predicted group affiliation to Chinses, Israelis, and Americans. We gain additional support of its validity, as it succeeds in predicting preference for products presented in ads highlighting a social claim. The scale may help in designing efficient marketing strategies. We hope this scale will promote further research in the international marketing field.

Keywords: Cross-Cultural Marketing, Scale development, High-Low Cultural Contexts

INTRODUCTION

In recent years, companies face new international markets for reaching more economic growth to gain success; companies need a broader cross-cultural comprehension for both marketing and HRM activities. International companies should develop an efficient and useful strategy to approach specific countries and increase their chances for successful marketing strategies (Yamen et al., 2021). This work

aims to develop an efficient and reliable tool for classifying the different cultural contexts of countries for successful marketing purposes.

Traditionally, scholars and practitioners focused mainly on the Hofstede model (1984, 2011), based on six factors scale originally developed with an organizational prism. Therefore, the model was stretched to international marketing purposes, with several limits (Fougère and Moulettes, 2007). A marketing-related classification is a model developed by Edward Hall of cultural context (1981), dividing the countries by Low or High cultural contexts (LC or HC, accordingly) based on how the people communicate, both implicitly and explicitly. Such a communication-based model can be more suitable to analyze and interpret marketing aspects in different cultures. However, Hall did not develop any scale to rank the different countries in the High-Low continuum empirically (Kaufmann and Durst, 2008). Several attempts were taken to conceptualize Hall's theory empirically, but most were based on small samples of students, and some were not tested for reliability and validity. Such a reliable and valid scale is relevant for international marketing and HRM purposes.

THEORETICAL BACKGROUND

Recently, new big countries in the markets arena emerge encouraging the growth of research addressing the relationship between culture and behavior (e.g., Hofstede, 2001, 2011; Schwartz, 1992; Triandis, 1991) and specifically in the communication and consumer behavior fields (Pantano, 2011). Culture is a complex multi-level construct inside the person and society (Triandis, 2004).

There are various ways to conceptualize culture. Hofstede (1984) refers to it as the *collective programming* of the mind which distinguishes groups. He identified six *cultural factors* as the different characteristics between cultures. These relate to power distance, uncertainty avoidance, individualism-collectivism, masculinity-femininity, time orientation, and indulgence-restraint.

Triandis (2012) characterized culture as a *shared meaning system* definable for a geographical region. The GLOBE project (House et al., 2004) defines culture as *practice and values*. Schwartz (2009, 2012) used ten dimensions of *value orientation* to differentiate among cultures. These include self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism. Gelfand and colleagues (2006) referred to culture using the notion of cultural *looseness-tightness*, the degree to which social norms and sanctions are enforced within societies.

Hall (1976, 1981) was one of the early researchers who classified culture into communication style and context between groups. He distinguishes between *low and high-context* (LC and HC) cultures depending on the importance of communication message elements in providing meanings. In an HC culture, information is implicit and can be understood fully only by the members of a society who share assumptions, experiences, and verbal codes (Ioanno and Zolkiewski, 2009). In this type of

culture, much is taken for granted, and there may be problems when people do not understand the unwritten rules of a culture. Hall and Hall (1990) define Korea, Japan, Taiwan, China, and southern European countries as being on the HC culture continuum. LC cultures are defined by clear and explicit information where mass information is embedded in messages (Kaufmann and Durst, 2008). This type of culture is composed of more psychologically distant people; thus, they use more explicit information to communicate. Hall and Hall (1990) consider the US, Germany, and northern European countries as being on the LC culture continuum. Hall's model remains mainly as a theory (Taras et al., 2009), although we found some scholars offered partial measures of his ideas (Kim et al., 1998; Jin, 2010). Most scales were developed based on students' samples only, and some were not appropriately checked for reliability and validation (e.g., Reardon and Miller, 2012). Some developed the items with a Western approach (e.g., Kim et al., 1998). Western approach to the items might create a paradox when investigating HC culture using LC methods that might miss the cross-cultural nature of the examination. Most did not translate the questionnaires into the native language, influencing the scale's performance (e.g., Taylor, 1979; Kapoor et al., 2003).

Furthermore, some developed scales measured only one of the constructs (e.g., only communication, but not a contextual perspective) presented in theory. Communication between people should be considered a broad concept (Hornikx and le Pair, 2017), including examining the predictive ability of the scale when examining marketing implications (and organizational aspects) in which the communication should play a part. These include examination in the consumer behavior, branding, retailing, sales force management, and HRM fields (Ling-Yee Li et al., 2017; Mintu-Wimsatt and Gassenheimer, 2000).

The importance of the present study is by developing a valid and reliable LC-HC culture instrument that will theoretically represent Hall's theory and will be practically used by international marketers. No large-scale empirical cross-cultural comparison study has been undertaken to quantitatively position existing cultures along the low-high-context dimensions (Kapoor et al., 2003). Using a valid and reliable scale for understanding the communication style difference between cultures will guide whether designing different marketing adaptations in the content and context of the message is required for each culture. Furthermore, it will enrich the marketing literature with a new relevant cultural segmentation scale for effective communication and message delivery.

Hall's theory of cultural differences

The anthropologist Edward Hall tried to understand the complexity of culture by focusing on contextual situations. Such situations may reveal hidden rules that help to communicate between individuals. On a theoretical continuum scale, American, German-Swiss, German, and Scandinavian cultures are at the bottom of the (LC) scale, while Chinese and Japanese cultures are at the top (HC).

Comparing to German-Swiss and Japanese cultures, Italian and French ones are a mixture of high and LC situations (Hall, 1990). Although Hall did not develop country scores, his findings show certain robustness for cross-cultural studies (Singelis and Brown, 1995; Würtz, 2005).

Hall's theory (1981) distinguished between three main cultural elements:

1. Time (Monochronic vs. Polychronic), General scheduling perception, and the extent to which individuals approach one task vs. multiple tasks at a time; 2. Space (Small vs. Large Distance), general scheduling perception, and the extent to which individuals are comfortable sharing physical space with others. 3. Relationship's systems.

His important study of **time** (Hall, 1984) as an expression of culture explains differences in behavior and language, while in his study of **space**, he developed the concept of proxemics, a description of how people behave and react in different types of culturally defined personal space. A large density of information is intended for close **relationships** between individuals (e.g., friends, colleagues, or family) in HC cultures (Hall, 1981). HC cultures (remain virtually unchanged over time) are respectful and can easily contact foreign cultures. Studies by Hall have shown that people's daily communication does not require detailed awareness of events, as they are always aware of what is happening. In turn, LC cultures are distinguished by the practical absence of an informal information network. In such cultures, the relationships between people occur within strict boundaries. At the same time, people themselves share personal relationships. This tendency has led to the fact that LC cultural representatives need a clear and framed understanding of what is going on around communicating with others. Knowing the characteristics of other cultures' lives is crucial in individuals' relationships, communication, and behavior (Manrai et al., 2019). Another important component of Hall's theory is contextual thinking or the adaptation of perceptions depending on different situations. HC cultures are more capable of contextual thinking than LC cultures. Another characteristic of high-context culture is homogeneity in respect to cultural heritage. It means that their members can rely on share symbols more than LC cultures.

The use of linguistic code in sending messages is typical of LC explicit cultures. While the linguistic code is only one part of the communication in HC cultures, it encompasses only part of the message. Sometimes the linguistic code can contradict the real message that is sent by context codes. It happens in many Far East cultures, where the meaning of "yes" (linguistic code) can be "no" if you can read the context codes. Consider, for example, that an event is usually infinitely more complex and richer than the language used to describe it. At least five different categories of events should be considered: the subject or activity, the situation, one's status in the social system, experience, and culture. In HC communication, most of the information is either in the physical context or internalized

in the person, while very little is in the coded and explicit part of the message. In an LC communication, the mass of the information is vested in the explicit code.

As we aim to test a theory empirically, the identification of empirical attributes that represent the abstract construct presented in Hall's theory should be first identified (Carpenter, 2018). The scales will capture latent concepts (not directly observed) with a group of concrete statements (Carpenter, 2018). Hall's theories focus on two central characteristics of culture: 1. The relationship is mainly composed of respect for others, and 2. Contextual thinking is the ability to understand and perceive the situation. In both constructs, the view of time and space is relevant (e.g., both in respecting other's time and space and contextual perception of time and space).

Thus, we expect two constructs will be relevant in Hall's LC and Hc theory and scale development:

H1a: Relationship dimension concerning respecting others will load on the first factor

H1b: Contextual thinking will load on the second factor, will load on the second factor

Both constructs will measure Hall's theory empirically; thus, the scale's predictive validity will be examined in the next hypotheses:

H2a: The new scale will predict nationality membership: low scores will predict American affiliation, and high will predict Chinese affiliation.

H2b: The new scale will predict nationality membership: medium scores will predict Israeli affiliation, and high will predict Chinese affiliation.

Another angle to gain predictive validity is the new scale prediction of the importance of social claims in a marketing message.

Social is the utility derived from a product/brand as purchasing is a means of improving their social standing and creating a positive impression on significant others. The social approval or the audience's reaction to their purchase (Walsh et al., 2008). The social utility can lead to recognition, improve one's self-esteem and enhance one's social well-being (Khan and Khan, 2011). The social utility was found to be important to Chinese consumers more than to American, as China is an in-group-oriented culture with people values the social benefit in purchasing material goods that elevate social status (Hofstede 2011; O'Cass and Siahtiri 2013; Triandis, 2010). The differential importance of the social utility for each LC and HC culture can be found in the adaptation of messages to each culture. For example, McDonald's advertisements in the East have used more nonverbal gestures and

communication than in the West, insinuating the social utility of McDonald's with images of people in groups, emphasizing messages in-group solidarity. In contrast, McDonald's commercials in the West have used more images of individuals, and the emphasis is personal enjoyment and fast and linear messaging (Würtz, 2005).

While this type of adaptation was used, no previous research had developed an empirical instrument that can predict these communication style differences between the cultures.

Thus, if the scale is valid, we expect:

H3: The new scale will predict the preference of a product that uses a social claim. Specifically, those who are higher on the scale will demonstrate a higher preference for the product presents in the ad than those who are lower on the scale.

METHOD

Overview of studies

Study 1 included Chinese and American participants, each answering questionnaire in its language. We first examined 50 items and reduced them to 10 theoretically relevant items to LC-HC concept of Hall's, using confirmatory factor analysis in Amos software. The reliability of the overall scale was examined. The scale showed differential grades in the LC-HC scale of Chinese or American cultures. *Study 2* confirmed the replicability of the theoretical structure and reliability and examined the scale's predictive validity. *Study 3* replicated the theoretical structure, ensured reliability, and examined the scale's predictive validity. We predicted group membership of Chinese, Israeli or American cultures using the scale items (expecting low will predict American affiliation, medium scores will predict Israelis' affiliation, and high will predict Chinese affiliation). *Study 4* examined the scale's ability (low and high scores of Americans and Chinese) to predict responses to a message containing a social utility claim gaining another predictive validation.

SCALE DEVELOPMENT

Study 1

Sample and procedure. Overall, 230 participants, 55% females, M age=34.81 (sd=9.09), were recruited to answer an online survey through Prolific (n=126 Americans) and Wenjuan platform (n=104 Chinese). Based on Hall's theory (1981, 1984, 1990), we collected 50 items based on the three cultural aspects. All items were measured on a 7-point scale where the low end referred to LC culture while the high end referred to HC cultures (full items are available on request). The version was translated into Chinese and then back translated into English.

Results. Out of the 50 items examined, 31 yielded differences in an independent t-test examination between Chinese and American respondents. Most items (27) were different between Chinese and Americans in the right direction (e.g., Chinese got a higher rating on the item than Americans). Accordingly, 27 items were examined in factor analysis using Varimax rotation, which identifies the scale's factors (Carpenter, 2018). We constrained the model to two dimensions as Hall highlighted their centrality to his theory: 1) Relationship 2) Contextual thinking. This analysis yielded 13 items that had loading higher than 0.5. The first factor had eight items and comprised 20.08% of the variance, while the second comprised of five items gained 11.88% of the variance. We then used the factors to create latent variables in AMOS. The fit of the model was not satisfactory. Hence, we deleted three items that had lower loadings. The final model gained a satisfactory fit: CMIN/DF= 1.410, NFI=0.908, IFI=0.971, CFI=0.970, RMSEA=0.042. Cronbach's alpha was 0.70. Overall, the scale has ten items, seven for the relationship and three for the contextual factor. This number of items is recommended to capture the true center of each dimension (Carpenter, 2018). Results are presented in Table 1.

Item ßFactor			Estimate	SE.
Respect the bureaucracy process	<--	F1	0.605*	0.102
Respect other's honor as a value	<--	F1	1.354*	0.152
Respect other's location	<--	F1	0.888*	0.118
Respect for other's time	<--	F1	1.000	
Respect the space (private/open space)	<--	F1	0.939*	0.133
Respect the other's silence in a conversation	<--	F1	0.535*	0.088
Respect the autonomy in time management	<--	F1	0.922*	0.124
Contextual levels of message (explicit/implicit)	<--	F2	0.981*	0.181
Waiting in a queue should be contextual	<--	F2	1.000	
Defining a space should be contextual	<--	F2	0.931*	0.170

*p < 0.001

Table 1. Study 1- Confirmatory factor analysis results

A single composite score for LC or HC classification was computed by averaging responses to the ten items, as well as averaging each of the sub scales separately. Thus, the possible range of scores on the LC and HC scale is from 1.0 to 7.0, with higher scores reflecting greater HC tendency. Americans got lower scores on both sub scales, compared to Chinese (Americans: M f1 =4.08, sd=0.56; Chinese: M f1=4.82, sd=0.81, t (183.55) = -7.65, p<0.001; Americans: M f2 =2.59, sd=0.95; Chinese: M f2=4.36, sd=1.24,

$t(193.33) = -11.51, p < 0.001$. Furthermore, Americans has lower score on the overall scale compared to Chinese (Americans: M overall = 3.63, $sd = 0.50$; Chinese: M overall = 4.69, $sd = 0.83$, $t(170.111) = -10.99, p < 0.001$).

Study 2

Sample and procedure. Overall, 487 participants, 45% females, M age = 34.11 ($sd = 7.37$), were recruited to answer an online survey through Prolific ($n = 200$ Americans) and Wenjuan platform ($n = 287$ Chinese). The ten items were measured, including gender and age segmentation questions.

Results. First, the ten items were examined using Amos to ensure the theoretical construct indeed holds. The results were stable as in Study 1. The final model gained a satisfactory fit: $CMIN/DF = 2.619$, $NFI = 0.959$, $IFI = 0.974$, $CFI = 0.974$, $RMSEA = 0.058$. Cronbach's alpha was 0.88. The results of the confirmatory analysis are presented in Table 2.

Item	Factor		Estimate	SE.
Respect the bureaucracy process	<--	F1	0.404*	0.057
Respect other's honor as a value	<--	F1	0.812*	0.070
Respect other's location	<--	F1	1.660*	0.106
Respect for other's time	<--	F1	1.000	
Respect the space (private/open space)	<--	F1	1.248*	0.085
Respect the other's silence in a conversation	<--	F1	0.561*	0.064
Respect the autonomy in time management	<--	F1	0.489*	0.059
Contextual levels of message (explicit/implicit)	<--	F2	0.786*	0.042
Waiting in a queue should be contextual	<--	F2	1.000	
Defining a space should be contextual	<--	F2	1.044*	0.050

* $p < 0.001$

Table 2. Study 2- Confirmatory factor analysis results

We used discriminant analysis to explore the scale's predictive validity (similar to Denissen et al., 2019). This Discriminant predictive validity examination was conducted when using the overall score of the scale as a predictor. Chinese had a rating of 5.69 ($sd = 0.97$), and Americans had a rating of 3.58 ($sd = 0.58$). A measure of the size of the effect is the canonical discriminant correlation which was 0.781 (Wilk's lambda's $p < 0.001$), stressing a strong relationship between the scale's score and the group affiliation to the nation segment. Using the predictive function of the scale score, we were accurate in prediction for the true affiliation of the groups: for the Chinese affiliation, we will be correct 86.8%,

and for Americans, we will be correct for 93.5%, this is substantially better than random (58% for Chinese and 41% for Americans) – this confirmed H2a.

Study 3

Sample and procedure. Overall, 268 participants, 54.5% females, M age=28.36 (sd=5.06), Chinese (n=91), were recruited to answer an online survey through the Wenjuan platform. Americans were recruited through Prolific (n=87) and Israeli students (n=90) filled an online questionnaire for course credit. The ten items were measured, including gender and age segmentation questions.

Item ßFactor			Estimate	SE.
Respect the bureaucracy process	<--	F1	0.683*	0.119
Respect other's honor as a value	<--	F1	0.672*	0.124
Respect other's location	<--	F1	2.005*	0.218
Respect of other's time	<--	F1	1.000	
Respect the space (private/open space)	<--	F1	1.273*	0.154
Respect the other's silence in a conversation	<--	F1	1.017*	0.137
Respect the autonomy in time management	<--	F1	0.831*	0.130
Contextual levels of message (explicit/implicit)	<--	F2	0.783*	0.066
Waiting in a que should be contextual	<--	F2	1.000	
Defining a space should be contextual	<--	F2	1.004*	0.074

*p<0.001

Table 3. Study 3- Confirmatory factor analysis results

Results. First, the ten items were examined using Amos to ensure the theoretical construct indeed holds. The results were stable as in Study 1 and 2. The final model gained a satisfactory fit: CMIN/DF= 2.015, NFI=0.930, IFI=0.964, CFI=0.963, RMSEA=0.062. Cronbach's alpha was 0.87. The results of the confirmatory analysis are presented in Table 3. Again, we conducted discriminant validity when using the overall score of the scale as a predictor. Chinese had a rating of 5.77 (sd=1.25), Israelis had a rating of 3.85 (sd=0.73), and Americans had a rating of 3.52 (sd=0.49). A measure of the size of the effect is the canonical discriminant correlation which was 0.795 (Wilk's lambda's p<0.001), stressing a strong relationship between the scale's score and the group affiliation to the nation segment. Unstandardized canonical discriminant functions evaluated at group means are the group means on the new scale. These group means are called centroids, and their overall mean is zero. The American group centroid is -1.152, the Israelis had -0.709, both representing the lower continuum of the LC-HC scale (where

Israeli are moderately low compared to Americans). In contrast, the Chinese group centroid is 1.802, a score in the higher continuum of the LC-HC scale. See Figure 1 for the results.

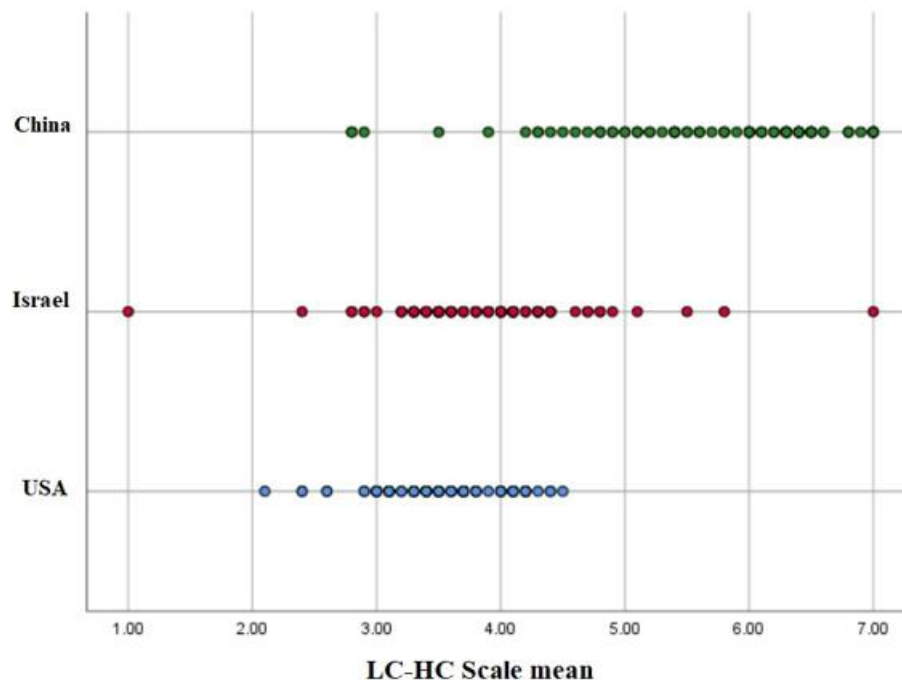


Figure 1. The new scale is predicting group membership differently for Americans (lower scores), Israeli (medium scores), and Chinese (highest scores)

Using the predictive function of the scale score, we were accurate in prediction for the true affiliation of the groups: for the Chinese affiliation, we will be correct 53.6%, and for Israelis, we will be correct for 59.8%, and Americans 83.5% this is substantially better than random (34% for Chinese, 33.6% for Israeli and 32.5% for Americans). As most researchers would accept a hit ratio that is 25% larger than chance, this overall predictive accuracy of the discriminant function of the scale is significantly better than chance—this confirmed H2b.

Study 4

Pretest. A questionnaire aimed to find ads with a social claim and find two product categories that were different in their social utility to gain generalization for two different product categories. We designed two ads promoting a watch or fridge with a message containing a social claim: “You can put it on your living room to impress your guests.” We had two living room pictures to fit each culture for the fridge ad background. For the watch ad, the background contained a blurred picture of social interaction.

The pretest was distributed to 75 English-speaking students studying cultural marketing courses coming from 15 different Western and Eastern countries (69% Women, 33% Eastern; Mage=28.44, SD=12.44). Respondents were asked to rate the watch and fridge product categories regarding their social utility on a 1 to 5 scale where 1 was low, and 5 was high. They were also asked to rate three

commercials (ads are available on request) and choose the most prominent characteristic of each advertisement: social, functional, or hedonic. Results of the pretest confirmed watch category ($m=3.08$, $sd=1.36$) was more social than fridge category ($m=1.79$, $sd=1.04$), $t(74) = -7.4$, $p < 0.001$. Furthermore, most respondents claim the most prominent claim in the ad presented is indeed social: 68% said the watch ad was social, 56% said the fridge with the Western background was social, and 61% said the fridge with the Eastern background was social. No significant difference between Eastern and Western students.

Sample and procedure. Overall, 300 participants, 57% females, M age = 26.36 ($sd=3.79$), were recruited to answer an online survey through the Wenjuan platform ($n=150$ Chinese) and Americans filled a questionnaire on Prolific ($n=150$ Americans). The two product categories were randomly shown to each respondent: watch or fridge. After watching the ad, respondents were asked to rate their preference for the product advertised from 1- low preference to 7-high preference. Lastly, the ten scale items were measured, including gender and age segmentation questions.

Results. First, the scale items were examined using Amos to ensure the theoretical construct indeed holds. The results were stable as in Studies 1-3. The final model gained a satisfactory fit: $CMIN/DF=6.06$, $NFI=0.926$, $IFI=0.938$, $CFI=0.938$, $RMSEA=0.08$. Cronbach's alpha of the overall scale reliability

Item	β	Factor	Estimate	SE.
Respect the bureaucracy process	<--	F1	0.400*	0.058
Respect other's honor as a value	<--	F1	0.849*	0.076
Respect other's location	<--	F1	1.901	0.125
Respect for other's time	<--	F1	1.000	
Respect the space (private/open space)	<--	F1	1.387*	0.098
Respect the other's silence in a conversation	<--	F1	0.782*	0.071
Respect the autonomy in time management	<--	F1	0.779*	0.074
Contextual levels of message (explicit/implicit)	<--	F2	0.793*	0.037
Waiting in a queue should be contextual	<--	F2	1.000	
Defining a space should be contextual	<--	F2	1.107*	0.041

was 0.89. The presented in Table 4.

* $p < 0.001$

Table 4. Study 4- Confirmatory factor analysis results

Again, we conducted discriminant validity when using the overall score of the scale as a predictor. Chinese had a rating of 5.52 (sd=1.03), and Americans had a rating of 3.44 (sd=0.49). A measure of the size of the effect is the canonical discriminant correlation which was 0.791 (Wilk's lambda's $p < 0.001$), stressing a strong relationship between the scale's score and the group affiliation to the nation segment. Using the predictive function of the scale score, we were accurate in predicting the true affiliation of the groups. We will be correct 84.0% for the Chinese affiliation, and for Israelis, we will be correct for 94.7%. This prediction is substantially better than random (50% for Chinese and 50% for Americans).

For analyzing H3, the expected our new scale will predict the preference of a product that uses a social claim in its ad. We used ANOVA, where the scale ratings, the product category (fridge or watch), along with a possible interaction of the two (scale x product category) were the independent variable that predicted preference for the product presented in an ad that highlights the social claim. The scale was a significant predictor of preference for the product $F(49, 210) = 12.14$, $p < 0.001$; The product category was not a significant predictor of preference for the product $F(1, 210) = 0.51$, $p = 0.474$, nor does the interaction of the scale by product category: $F(39, 210) = 1.00$, $p = 0.473$. This means the results hold for both product categories, in the same way, confirming H3 (Figure 2).

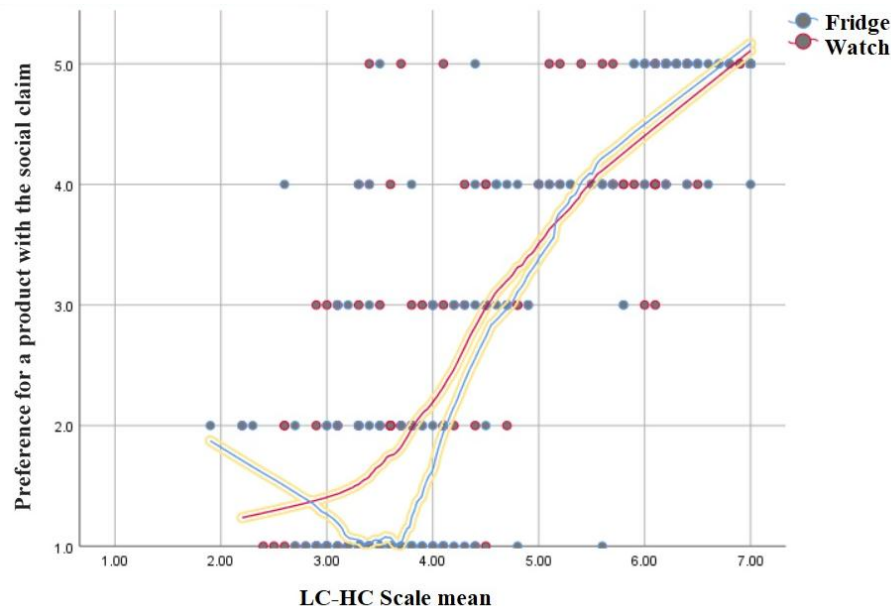


Figure 2. The new LC-HC scale's ability to predict preference for a product with a social claim in the fridge and watch categories.

DISCUSSION AND CONCLUSION

The objective of this study was to develop a reliable and valid scale based on Hall's theory of LC and HC cultures. The ten items scale was successful in predicting group membership of Chinese, Americans, and Israelis. The scale gained reasonable reliability and was validated by discriminated analysis. We further validated the scale by examining its ability to predict preference for a social claim when promoting two products considered to have different social utility for the consumers. Specifically, the refrigerator has mostly a functional perception, while the watch has mostly a hedonic and social perception (connecting to the brand image). The preference for the social claim was higher for the Chinese sample compared to the Americans in both products. Being the Chinese culture an HC culture, the social claim is higher understood and preferred. Therefore, our LC-HC scale can predict the preferences of a social claim. This prediction is a confirmation of the scale's validity, which confirms its potential utility. The scale can be used in identifying where the different countries are in the continuum of LC or HC cultures. As we mentioned above, identifying the level of the cultural context of each country can increase the correctness of the marketing decisions in a cross-cultural context, as a fundamental way to analyze and understand the international market.

The marketing choices can be facilitated further by a better knowledge of the cultural context at least in four more situations: beyond the development of the international communication strategy of a company, adapting the content and the tone of the message to every particular cultural context; for example a) salesforce negotiation in a different cultural context; b) defining the shop experience and atmosphere (both contextual tools) in the international retail design; c) in predicting some aspects of the consumer behavior in different cultural contexts, i.e., LC and HC different in decision making consideration or differences in product use ; d) in describing and underlining the brand values differently in the international markets, as exploring different brand positioning among LC and HC cultures. The scale can further define the relationship and communication strategies towards human resources in a cross-cultural environment, identifying the different contents and tones of the communication to managers and employers in different cultural contexts. However, this paper is only the first step of a broader analysis, which should be conducted involving other countries. The limits of this work can be found in the number of countries and the number of respondents, despite the people involved in the sample are not focused on one demographic segment (i.e., students) as normally used in preliminary research. It will be important to increase the number of countries in the extreme-scale (very LC or HC) continuum from low to high to gain further empirical evidence to Hall's theoretical continuum. We hope the new reliable and valid scale will open the door for further research in international marketing. Specifically, further exploring this relevant segmentation base that is focused

on communication and cultural context and examining related implications of this segmentation to consumer behavior and efficient marketing strategies.

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CROSS-CULTURAL MARKET SEGMENTATION SCALE. TOWARDS A HIGH- AND LOW-CONTEXT CULTURE SCALE

Friedman, Enav¹; Vescovi, Tiziano²; Weiss-Sidi, Merav¹

¹Ben Gurion University, Israel

²Ca' Foscari University of Venice, Italy

ABSTRACT

Numerous scales that use cultural segmentation are commonly used and applied to the marketing context. Hall's theory of Low and High context cultures is the most relevant for marketing as it focuses on communication style and contextual thinking. Some scholars offered partial measures to his ideas, mainly basing their scales on students' sample, not examining variety of countries, not translating the questionnaires into the native's language, or taking a Western point of view in phrasing the items. The aim of this paper is developing a reliable and valid scale that can capture Hall's theory, when trying to deal with the other's scale limitation.

In four studies (n= 1285) we gain an empirical support for Hall's communication and contextual dimensions. The scale was reliable and valid as it predicted group affiliation to Chinses, Israelis and Americans. We gain addition support of its validity, as it was able to predict preference for products that were presented in ads highlighting social claim. The scale may help in designing efficient marketing strategies. We hope this scale will promote further research in the international marketing field.

Keywords: Cross-Cultural Management, Scale, High-Low Cultural Contexts

1. INTRODUCTION

Facing new international markets that reached more and more economic importance in the recent years, as China, and Sub-Saharan African countries, companies have a growing need of the cross-cultural comprehension, both for marketing and HRM activities. International companies should use simple tools to cope with a complex phenomenon as the cross-cultural analysis, in order to develop an efficient and useful strategy to approach specific countries and increase their chances for successful marketing strategies (Han and Shavitt, 1994; Kraus et al., 2016; Karande et al., 2006; Kocak et al., 2007; Wei and Yazdanifard, 2014).

Traditionally, scholars and practitioners focused mainly on the Hofstede model (1981, 2011), based on a six factors scale, and developed based on an organizational prism, as it aimed originally to help IBM in managing human resources in different cultural contexts. Therefore, the model was stretched to

marketing purposes, more and more important in the process of internationalization, with several limits (Fougère, and Moulettes, 2007).

A more marketing related classification is the model developed by Edward Hall of cultural context (1981), dividing the countries by High or Low cultural contexts, based mainly on the way the people communicate, both implicitly and explicitly. Such communication-based model can be more suitable to analyze and interpret marketing aspects in different cultures. However, Hall did not develop any scale to rank the different countries in the High-Low continuum empirically. Several attempts were taken to empirically conceptualize Hall's theory, but most were based on small samples of students and some were not tested for reliability and validity. Such reliable and valid scale can be relevant for international marketing purposes and can be also used for HRM as communication is relevant in the organizational field as well as in marketing.

This paper aims to start developing a reliable and valid scale in order to classify the different cultural context of the countries, further helping companies to adapt relevant marketing strategies for each country based on its classification.

2. THEORETICAL BACKGROUND

In the recent years, caused by the emergence of new big countries in the markets arena, having distant cultures compared to the Western countries' ones, has been generated a remarkable growth of research addressing the relationship between cultural differences characteristics and cognition, emotion and behavior (e.g. Hofstede, 2001, 2011; Markus and Kitayama, 1991; Schwartz, 1992; Triandis, 1991) and specifically in the communication and consumer behavior fields (Lovelock, 2007; Luna and Forquer-Gupta, 2001).

The construct of culture has been studied in many disciplines under different names (Taras, Rowney, and Steel, 2009). Generally agreed that culture is a complex multi-level construct inside the person (Triandis, 2004) and in the society (Herbig, 1997; Trompenaars and Woolliams 2006). It is often depicted using an "onion" diagram with basic assumptions and values representing the core of culture, and practices, symbols, and artifacts representing the outer layers of the construct (Hofstede, 2001).

There are many definitions and various ways to conceptualize culture. Hofstede (1984) regarded to culture as "the collective programming of the mind which distinguishes the members of one group or society from those of another". Later on, Triandis (2012) characterized culture as "a shared meaning system found among those who speak a particular language dialect, during a specific historical period, and in a definable geographical region".

Different dimensions and features were used to assess culture: The GLOBE project (House et al., 2004) defines culture as composed by *practice and values*. Practices are acts or the way things are done in this culture” and values are artifacts because they are human made and are judgments about “the way things should be done”. Schwartz (2009, 2012) used nine dimensions of *value orientation* to differentiate among cultures. These include self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism.

Hofstede (2001, 2011) identifies six *cultural factors* as the difference characteristics between cultures. These relate to: Power Distance, expectation and acceptance that power is distributed unequally; Uncertainty Avoidance, felt threatened by uncertain situations; Individualism-Collectivism, individual vs. group interest; Masculinity-Femininity, material possession vs. quality of life; Time Orientation, long term vs. short term; and Indulgence-Restraint, emphasis on enjoyment vs. social control.

Trompenaars and Woolliams (2006) describe culture as a *classification of dilemmas*, occurring from the tensions between the values from which they originate. In particular they propose seven dilemmas: Universalism-Particularism, standardized rules or flexibility approach; Individualism-Communitarianism, fostering individual performance or group consensus; Neutral-Affective, emotions controlled or not; Specific Diffuse, degree of involvement in personal relationship; Achievement-Ascription, status based on performance or on age, gender, school, etc.; Sequential-Synchronic, how the time is organized; and Internal-External Control, control depending on inner drive or external events.

Another value-free model of culture was offered by Gelfand and colleagues (2006). The model is based on the notion of cultural *looseness-tightness*; that is the classification is made in terms of the degree to which social norms and sanctions are enforced within societies. Although no quantitative national indices based on the model have been published yet, the data collection efforts are currently in progress and the conceptual model may soon be supplemented with empirical findings.

Hall (1976, 1981) distinguishes between *high- and low-context* cultures depending on the importance given to communication message elements in providing meanings. In a high-context culture, information is implicit and can be understood fully only by the members of a society who share assumptions, experiences and verbal codes. The result is that much is taken for granted and there may be problems when people do not understand the unwritten rules of a culture. Hall and Hall (1990) define Korea, Japan, Taiwan, China and southern European countries as having a high-context culture, even if in a different extent. Low-context cultures instead are defined by clear and explicit information where mass information is embedded in messages. This type of cultures is composed by people who are more psychologically distant, this is why they use more explicit information to

communicate with each other. Hall and Hall (1990) consider US, Germany and northern Europeans countries to be low-context culture countries.

Hall was one of early researchers who classified culture into communication style and pattern of context between groups. All these years his conception model remain only as theory (Taras et al., 2009), although we found that some scholars offered partial measures to his ideas (Kim et al., 1998; Jin, 2010; Reardon and Miller, 2012).

Most scales were developed based on students' sample only, and some were not appropriately checked for reliability and validation. Some developed the items with a Western approach. This might create a paradox when investigating high-context culture using low-context methods that might miss the cross-cultural nature of the examination. Most did not translate the questionnaires into the native language, which might influence the scale's performance (Taylor, 1979). Furthermore, some developed scales measured only one of the constructs (e.g. only communication, but not a contextual perspective) presented in the theory. Communication between people should be considered as a broad concept (Hornikx and le Pair, 2017) including examining the predictive ability of the scale when examining marketing implications (and organizational aspects) in which the communication should play a part. These include examination in the consumer behavior, branding, retailing, sales force management and HRM fields (Ling-Yee Li, et al., 2017; Mintu-Wimsatt and Gassenheimer, 2000; Meyer, 2015).

The importance of the present study is by developing a valid and reliable LC-HC (High-Context, Low-Context) culture instrument, a scale aiming to identify the level of LC-HC of different national cultures that will represent theoretically Hall's hypothesis and will be practically used by international marketers. No large-scale empirical cross-cultural comparison study has been undertaken to quantitatively position existing cultures along the low-high-context dimensions (Kapoor, et al., 2003). Using a valid and reliable scale for understanding the communication style difference between cultures will provide guidance whether designing different marketing adaptation in content and context of the message is required for each culture and how. Furthermore, it will enrich the marketing literature with a new relevant cultural segmentation scale for an effective communication and message delivery.

Hall's theory of cultural differences

Due to the complexity of culture, the anthropologist Edward Hall was determined by the wealth of contextual information needed to understand the social situation. Understanding the contextual situation should be done using some hidden rules that help communicating between individuals. Hall's theory (1981) as related communication as "social axioms", which is basic assumptions about social conventions that represent the common people in one's culture. Hall distinguished between three cultural main elements: 1. Relationships systems; 2. Time (Monochronic vs. Polychronic),

General scheduling perception, and extent to which individuals' approach towards one task vs. multiple tasks at a time; 3. Space (Small vs. Large Distance), general scheduling perception, and extent to which individuals are comfortable sharing physical space with others.

In a theoretical continuum scale American, German-Swiss, German and Scandinavian cultures are at the bottom of the (LC) scale, while Chinese and Japanese cultures are at the top (HC). Both of those countries have a great and complex culture requiring deep knowledge and careful attention to the context to be understood. Comparing to German-Swiss and Japanese cultures, Italian and French ones are a mixture of high and low-context institution and situations (Hall, 1990).

Despite Hall did not develop country scores, his findings show a certain robustness for cross-cultural studies (Singelis and Brown, 1995; Würtz, 2005). The context concept is useful for understanding consumer behavior across cultures; differences between cultures with respect to the relationship between man and nature still are viewed as unique; his important study of time (Hall, 1984) as an expression of culture provides an explanation of differences in behavior and language, while in his study of space he developed the concept of *proxemics*, a description of how people behave and react in different types of culturally defined personal space (Hall, 1969).

The context orientation developed by Hall divides cultures in low-context and high-context communication cultures. The information of a low-context message is direct and unambiguous; low-context communication cultures demonstrate positive attitudes toward words. Argumentation and rhetoric in society are more found in low-context cultures, whereas societies of high-context culture are characterized by symbolism or indirect verbal expression. In high-context communication or message, most of the information is either part of the context or internalized in the person; very little is made explicit as part of the message, and it could be defined as inaccessible to outsiders.

To Hall's theory, the culture of high context means a successful understanding of all events, as a large density of information is intended for close **relationships** between individuals. It doesn't matter if you're talking to friends, colleagues or family. Highly contextual cultures (remain virtually unchanged over time) are respectful and can easily come into contact with foreign cultures. Studies by Hall have shown that daily communication of people does not require detailed awareness of events, as they are always aware of what is happening. In turn, low context cultures are distinguished by the practical absence of an informal information network. In such cultures, the relationships between people occur within strict boundaries. At the same time, people themselves share personal relationships and aspects of work. This tendency has led to the fact that low-context cultural representatives need further clear and framed understanding of what is going on around communicating with others. Knowing the characteristics of life of other cultures is crucial in the relationship, communication and behavior of individuals (Manrai et al., 2019). Another important component of Hall's theory is the

contextual thinking or the adaptation of perceptions depending on different situations, in which highly contextual cultures are more capable of than low contextual cultures. Another characteristic of high-context culture is homogeneity in respect to cultural heritage. It means that their members can rely on share symbols more than LC cultures. The use of linguistic code in sending messages is typical of low-context explicit cultures, while the linguistic code is only one part of the communication in high-context cultures, it encompasses only part of the message. Sometimes the linguistic code can contradict the real message, that is sent by context codes. It happens in many Far East cultures, where the mining of “yes” (linguistic code) can be “no” if you can read the context codes. Consider, for example, that an event is usually infinitely more complex and richer than the language used to describe it. At least five sets of different categories of events should be taken into account: the subject or activity, the situation, one’s status in the social system, past experience, and culture. In a high-context communication most of the information is either in the physical context or internalized in the person, while very little is in the coded and explicit part of the message. In a low context communication, the mass of the information is vested in the explicit code.

As we aim to empirically test a theory, the identification of empirical attributes that represent the abstract construct presented in Hall’s theory should be first identified (Carpenter, 2018). The scales will capture latent concepts (not directly observed) with a group of concrete statements (Carpenter, 2018). As Hall’s theory focus on two central characteristics of culture: 1. Relationship, that is mainly composed of respect of others and 2. Contextual thinking, which concerns the ability to understand and perceive the situation. In both constructs the view of time and space is relevant (e.g., both in respecting other’s time and space, and contextual perception of time and space).

Thus, we expect two constructs will be relevant in Hall’s LC and Hc theory and scale development:

H1a: Relationship dimension with regard to respecting others, will load on the first factor

H1b: Contextual thinking will load on the second factor, will load on the second factor

Both constructs will measure Hall’s theory empirically, thus the scale’s predictive validity will be examined in the next hypotheses:

H2a: The new scale will predict nationality membership: low scores will predict American affiliation and high will predict Chinese affiliation.

H2b: The new scale will predict nationality membership: medium scores will predict Israeli affiliation and high will predict Chinese affiliation.

Another angle to gain predictive validity is by the new scale prediction of the importance of social claim in a marketing message.

Social is the utility derived from a product/brand as purchasing it is a means of improving their social standing and creating a positive impression on significant others. It is the social approval (Walsh et al., 2008) or the audience reaction to their purchase (Mason, 1984), satisfying the desire for recognition or acceptance from others; improving one's self-esteem or self-respect; or the enhancement of one's social well-being (Baumeister and Sommer, 1997; Chen, Shang, and Lin, 2009; O'Cass and McEwen, 2004; Khan and Khan, 2011).

Social utility is the most connected to high and low context situation, because is a utility coming from the relationship among persons, communicating social role, social identity, and social achievement. These aspects could be communicated in a High Context or in a Low Context manner, depending on the communication rules of the society in which a person is embedded.

Social utility was found to be important to Chinese consumers more than American, as China is an in-group-oriented culture with people values the social benefit in purchasing material goods that elevate social status (Eastman and Eastman, 2011; Hofstede 2011; O'Cass and Siahtiri 2013; Triandis, 2010). The differential importance of the social utility for each LC and HC culture can be found in the adaptation of messages to each culture. For example, McDonald's advertisements in the East have used more nonverbal gestures and communication than in the West, insinuating to the social utility of McDonald with images of people in groups, emphasizing messages in group solidarity. In contrast, McDonald's commercials in the West have used more images of individuals, the emphasis is personal enjoyment and fast and linear messaging (Würtz, 2005).

While this type of adaptations were used no previous research had developed an empirical instrument that can predict these communication style differences between the cultures.

Thus, if the scale is valid, we expect:

H3: The new scale will predict the preference of a product that uses a social claim. Specifically, those who are higher on the scale will demonstrate higher preference for the product presents in the ad than those who are lower on the scale.

3. METHOD

Overview of studies

Study 1 included Chinese and American participants, each answering questionnaire in its own language. We first examined 50 items and reduced them to 10 theoretically relevant items to HC-LC concept of Hall's, using confirmatory factor analysis in Amos software. Reliability of the overall scale

was examined. The scale showed differential grades in the LC-HC scale of Chinese or American cultures.

Study 2 confirmed the replicability of the theoretical structure, and reliability, and examined predictive validity of the scale, by predicting group membership to Chinese or American cultures using the scale items (expecting low scores will predict American affiliation and high will predict Chinese affiliation)

Study 3 replicated the theoretical structure, insured the reliability, and examined predictive validity of the scale, by predicting group membership to Chinese, Israeli or American cultures using the scale items (expecting low will predict American affiliation, medium scores will predict Israelis' affiliation and high will predict Chinese affiliation)

Study 4 examined the scale ability (low and high scores of Americans and Chinese) to predict responses to a message containing social utility claim gaining another predictive validation.

4. SCALE DEVELOPMENT

Study 1

Sample and procedure

Overall, 230 participants, 55% females, M age=34.81 (sd=9.09), were recruited to answer an online survey through Prolific (n=126 Americans) and Wenjuan platform (n=104 Chinese).

Based on Hall's theory (1969, 1981, 1984, 1990) we collected 50 items, that based on the three cultural aspects: 1. Relationships systems 2. Time (monochronic vs. polychronic) 3. Space (small vs. large distance). All items were measured on a 7-point scale where the low end referred to LC culture while high end referred to HC cultures (full items are available on request).

The version was translated into Chinese and then back translated into English by a second translator to ensure comparability and equivalence in meaning (Brislin, 1970). As language represents an expression of culture, its values and beliefs (Taylor, 1979) a good quality translation was important.

Results

Out of the 50 items examined, 31 yielded differences in an independent t-test examination between Chinese and American respondents. Most of the items (27) were different between Chinese and Americans in the right direction (e.g., Chinese got higher rating on the item than Americans). Accordingly, 27 items were examined in a factor analysis using varimax rotation, that more clearly identify the scale's factors (Carpenter, 2018). We constrained the model to two dimensions as Hall highlighted in his theory their centrality to his theory: 1. Relationship 2. Contextual thinking. This analysis yielded 13 items that had loading higher than .5. The first factor had eight items and was comprised of 20.08% of the variance while the second comprised of five items gained 11.88% of the variance. We then used the factors to create latent variables in AMOS. The fit of the model was not

satisfactory, hence we deleted three items that had lower loadings. The final model gained a satisfactory fit: CMIN/DF= 1.410, NFI=0.908, IFI=0.971, CFI=0.970, RMSEA=0.042. Cronbach's alpha of the overall scale reliability was 0.70.

Overall, the scale has ten item, 7 for the relationship factor and three for the contextual factor, the number of items for each subscale satisfy the suggestion to include at least three items for each subscale in order to capture the true central of each dimension (Carpenter, 2018). The results of the confirmatory analysis are presented in Table 2 (the full items are available on request).

Table 2. Study 1- Confirmatory factor analysis results

Item	Factor	Estimate	S.E.
Respect the bureaucracy process	<-- F1	0.605*	0.102
Respect other's honor as a value	<-- F1	1.354*	0.152
Respect other's location	<-- F1	0.888*	0.118
Respect of other's time	<-- F1	1.000	
Respect the space (private/open space)	<-- F1	0.939*	0.133
Respect the other's silence in a conversation	<-- F1	0.535*	0.088
Respect the autonomy in time management	<-- F1	0.922*	0.124
Contextual levels of message (explicit/implicit)	<-- F2	0.981*	0.181
Waiting in a que should be contextual	<-- F2	1.000	
Defining a space should be contextual	<-- F2	0.931*	0.170

*p < 0.001

A single composite score for LC or HC classification was computed by averaging responses to the ten items, as well as averaging each of the sub scales separately. Thus, the possible range of scores on the LC and HC scale is from 1.0 to 7.0, with higher scores reflecting greater HC tendency. Americans got lower scores on both sub scales, compared to Chinese (Americans: $M_{f1} = 4.08$, $sd = 0.56$; Chinese: $M_{f1} = 4.82$, $sd = 0.81$, $t(183.55) = -7.65$, $p < 0.001$; Americans: $M_{f2} = 2.59$, $sd = 0.95$; Chinese: $M_{f2} = 4.36$, $sd = 1.24$, $t(193.33) = -11.51$, $p < 0.001$. Furthermore, Americans has lower score on the overall scale compared to Chinese (Americans: $M_{overall} = 3.63$, $sd = 0.50$; Chinese: $M_{overall} = 4.69$, $sd = 0.83$, $t(170.111) = -10.99$, $p < 0.001$).

Study 2

Sample and procedure

Overall, 487 participants, 45% females, M age=34.11 (sd=7.37), were recruited to answer an online survey through Prolific (n=200 Americans) and Wenjuan platform (n=287 Chinese). The ten items were measured including gender and age segmentation questions.

Results

First, the ten items were examined using Amos to ensure the theoretical construct indeed hold. The results were stable as in Study 1. The final model gained a satisfactory fit: CMIN/DF= 2.619, NFI=0.959, IFI=0.974, CFI=0.974, RMSEA=0.058. Cronbach's alpha of the overall scale reliability was 0.88. The results of the confirmatory analysis are presented in Table 3.

Table 3. Study 2- Confirmatory factor analysis results

Item	Factor		Estimate	S.E.
Respect the bureaucracy process	<--	F1	0.404*	0.057
Respect other's honor as a value	<--	F1	0.812*	0.070
Respect other's location	<--	F1	1.660*	0.106
Respect of other's time	<--	F1	1.000	
Respect the space (private/open space)	<--	F1	1.248*	0.085
Respect the other's silence in a conversation	<--	F1	0.561*	0.064
Respect the autonomy in time management	<--	F1	0.489*	0.059
Contextual levels of message (explicit/implicit)	<--	F2	0.786*	0.042
Waiting in a que should be contextual	<--	F2	1.000	
Defining a space should be contextual	<--	F2	1.044*	0.050

*p<0.001

For exploring the predictive validity of the scale, we used discriminant analysis (similar to Denissen et al., 2019). This Discriminant predictive validity examination was conducted when using the overall score of the scale as predictors.

Chinese had a rating of 5.69 (sd=0.97), and Americans had a rating of 3.58 (sd=0.58).

A measure of the size of the effect is the canonical discriminant correlation which was 0.781 (Wilk's lambda's p<0.001) stressing a strong relationship between the scale's score and the group affiliation to the nation segment.

Using the predictive function of the scale score, we were accurate in prediction for the true affiliation of the groups, for the Chinese affiliation we will be correct 86.8% and for Americans we will be correct for 93.5%, this is substantial better than random (58% for Chinese and 41% for Americans). This confirmed H2a.

Study 3

Sample and procedure

Overall, 268 participants, 54.5% females, M age=28.36 (sd=5.06), Chinese (n=91) were recruited to answer an online survey through Wenjuan platform. Americans were recruited through Prolific (n=87) and Israeli students (n=90) filled an online questionnaire for course credit. The ten items were measured including gender and age segmentation questions.

Item	β	Factor	Estimate	S.E.
Respect the bureaucracy process	<--	F1	0.683*	0.119
Respect other's honor as a value	<--	F1	0.672*	0.124
Respect other's location	<--	F1	2.005*	0.218
Respect of other's time	<--	F1	1.000	
Respect the space (private/open space)	<--	F1	1.273*	0.154
Respect the other's silence in a conversation	<--	F1	1.017*	0.137
Respect the autonomy in time management	<--	F1	0.831*	0.130
Contextual levels of message (explicit/implicit)	<--	F2	0.783*	0.066
Waiting in a que should be contextual	<--	F2	1.000	
Defining a space should be contextual	<--	F2	1.004*	0.074

Table 4. Study 3- Confirmatory factor analysis results

*p<0.001

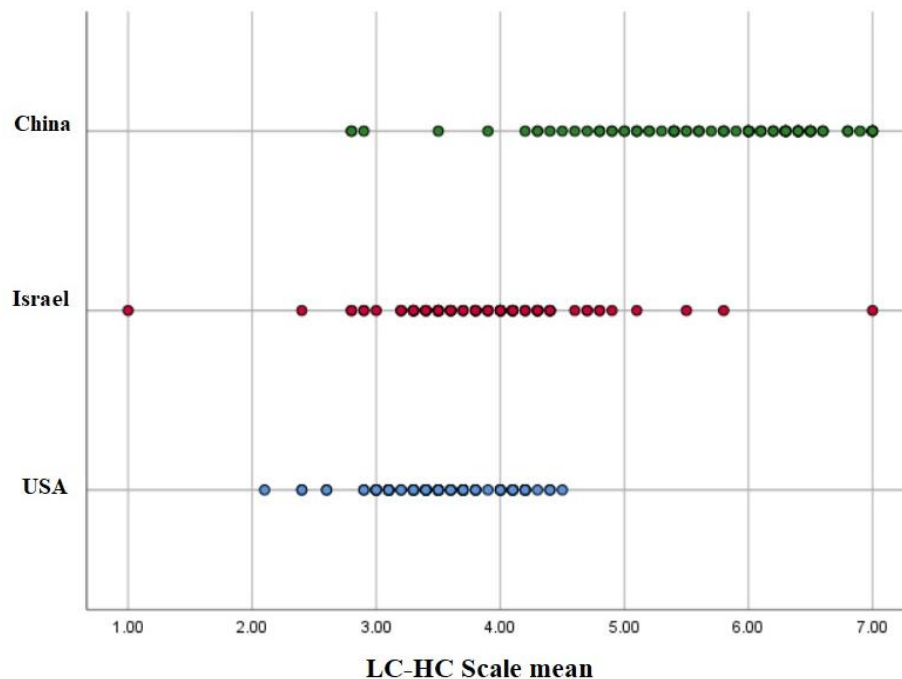
Results

First, the ten items were examined using Amos to ensure the theoretical construct indeed hold. The results were stable as in Study 1 and 2. The final model gained a satisfactory fit: CMIN/DF= 2.015, NFI=0.930, IFI=0.964, CFI=0.963, RMSEA=0.062. Cronbach's alpha of the overall scale reliability was 0.87. The results of the confirmatory analysis are presented in Table 4.

Again, we conducted discriminant validity when using the overall score of the scale as predictor. Chinese had a rating of 5.77 (sd=1.25), Israelis had a rating of 3.85 (sd=0.73) and Americans had rating of 3.52 (sd=0.49). A measure of the size of the effect is the canonical discriminant correlation which was 0.795 (Wilk's lambda's p<0.001) stressing a strong relationship between the scale's score and the group affiliation to the nation segment. Unstandardized canonical discriminant functions evaluated at group means are the group means on the new scale. These group means are called centroids and their overall mean is zero. The American group centroid is -1.152, the Israelis had -0.709 both representing

the lower continuum of the LC-HC scale (where Israeli are moderately low compared to Americans), while the Chinese group centroid is 1.802, a score in the higher continuum of the LC-HC scale. See Figure 1 for the results.

Figure 1. The new scale is predicting group membership, differently for Americans (lower scores) Israeli (medium scores) and Chinese (highest scores)



Using the predictive function of the scale score, we were accurate in prediction for the true affiliation of the groups, for the Chinese affiliation we will be correct 53.6% and for Israelis we will be correct for 59.8%, and Americans 83.5% this is substantial better than random (34% for Chinese, 33.6% for Israeli and 32.5% for Americans).

As most researchers would accept a hit ratio that is 25%¹ larger than that due to chance, this overall predictive accuracy of the discriminant function of the scale is significantly better than chance. This confirmed H2b.

Study 4

Pretest

A pretest questionnaire aimed at finding ads that were considered as having a social claim and finding two product categories that were different in their social utility, in order to gain generalization for two different product categories. We designed two ads promoting watch or fridge with a message containing a social claim: "You can put it on your living room to impress your guests". We had two

¹

<https://www.researchgate.net/file.PostFileLoader.html?id=548f502ed11b8b793c8b45bc&dassetKey=AS%3A273652862390274%401442255334885>

living rooms pictures to fit each culture for the fridge ad background, for the watch the background contains a blur picture of a social interaction.

The pretest was distributed to 75 English speaking students studying cultural marketing courses coming from 15 different Western and Eastern countries (69% Women, 33% Eastern; Mage=28.44, SD=12.44) in which they were asked to rate the watch and fridge product categories in terms of their social utility on a 1 to 5 scale where 1 was low and 5 was high. They were also asked to rate three commercials (ads are available on request) and choose the most prominent characteristic of each advertisement: social, functional or hedonic. Results of the pretest confirmed watch category ($m=3.08$, $sd=1.36$) was more social than fridge category ($m=1.79$, $sd=1.04$), $t(74)=-7.4$, $p<0.001$. Furthermore, majority of respondent claim the most prominent claim in the ad presented is indeed social: 68% said the watch ad was social, 56% said the fridge with the western background was social, and 61% said the fridge with the Eastern background was social. No significant difference between Eastern and Western students.

Sample and procedure

Overall, 300 participants, 57% females, M age= 26.36 ($sd=3.79$), were recruited to answer an online survey through Wenjuan platform ($n=150$ Chinese) and Americans filled a questionnaire on Prolific ($n=150$ Americans). The two product categories were randomly shown to each respondent: watch or fridge. After watching the ad, respondent to be asked to rate their preference for the product advertised from 1- low preference to 7-high preference. Lastly, the ten items were measured including gender and age segmentation questions.

Results

First, the ten items were examined using Amos to ensure the theoretical construct indeed hold. The results were stable as in Studies 1-3. The final model gained a satisfactory fit: CMIN/DF= 6.06, NFI=0.926, IFI=0.938, CFI=0.938, RMSEA=0.08

Cronbach's alpha of the overall scale reliability was 0.89.

The results of the confirmatory analysis are presented in Table 5.

Item	Factor	Estimate	S.E.
Respect the bureaucracy process	<-- F1	0.400*	0.058
Respect other's honor as a value	<-- F1	0.849*	0.076
Respect other's location	<-- F1	1.901	0.125
Respect of other's time	<-- F1	1.000	
Respect the space (private/open space)	<-- F1	1.387*	0.098
Respect the other's silence in a conversation	<-- F1	0.782*	0.071
Respect the autonomy in time management	<-- F1	0.779*	0.074
Contextual levels of message (explicit/implicit)	<-- F2	0.793*	0.037
Waiting in a que should be contextual	<-- F2	1.000	
Defining a space should be contextual	<-- F2	1.107*	0.041

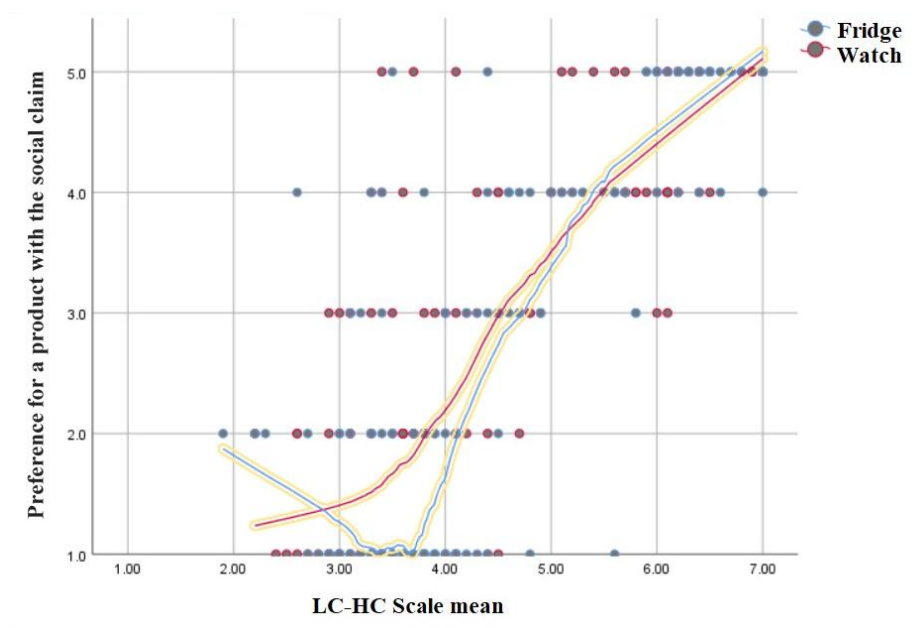
Table 5. Study 4- Confirmatory factor analysis results

* $p < 0.001$

Again, we conducted discriminant validity when using the overall score of the scale as predictor. Chinese had a rating of 5.52 (sd=1.03), and Americans had a rating of 3.44 (sd=0.49). A measure of the size of the effect is the canonical discriminant correlation which was 0.791 (Wilk's lambda's $p < 0.001$) stressing a strong relationship between the scale's score and the group affiliation to the nation segment. Using the predictive function of the scale score, we were accurate in prediction for the true affiliation of the groups, for the Chinese affiliation we will be correct 84.0% and for Israelis we will be correct for 94.7%, this is substantial better than random (50% for Chinese and 50% for Americans).

For analyzing H3 the expected the new scale will predict the preference of a product that uses a social claim in its ad, we used ANOVA, where the scale ratings, the product category (fridge or watch), along with a possible interaction of the two (scale x product category) were the independent variable that predicted preference for the product presented in an ad that highlights the social claim. The scale was significant predictor of preference for the product $F(49, 210) = 12.14$, $p < 0.001$; The product category was not significant predictor of preference for the product $F(1, 210) = 0.51$, $p = 0.474$, nor does the interaction of the scale by product category. The product category was not significant predictor of preference for the product $F(39, 210) = 1.003$, $p = 0.473$. This means the results holds for both product categories in the same way (See Figure 2). This confirmed H3.

Figure 2. The new LC-HC scale's ability to predict preference for a product with a social claim, in the fridge and watch categories.



5. DISCUSSION AND CONCLUSION

The objective of this study was to develop a reliable and valid scale that is based on Hall's theory of low and high context cultures. The ten items scale was successful in predicting group membership of Chinese, Americans and Israelis. The scale gained a reasonable reliability and was validated by discriminated analysis. We further validated the scale by examining its ability to predict preference for social claim, when promoting two products with a different social utility for the consumers. Actually, while the refrigerator has mostly a functional perception, the watch has mostly a hedonic and social perception (connecting to the brand image). The preference for the social claim was high for the Chinese sample and lower for the Americans in both products. Being the Chinese culture a High Context culture, the social claim is higher understood and preferred.

Therefore, the scale is able to predict the preferences in low and high context. This can be considered as the confirmation of the validity of the scale, at least in far distant cultural context. The predictive validity of the scale confirms its potential utility.

The scale can be used in identifying if the different countries are low or high context cultures, and in which point of the continuum from low to high context culture they areas we demonstrated in identifying the position of Israel.

As we mentioned above, the identification of the level of cultural context of each country can increase the correctness of the marketing decisions in a cross-cultural context, as more and more seems a fundamental way to analyze and understand the international market.

The marketing choices can be facilitated further by a better knowledge of the cultural context at least in four more situations: beyond the development of the international communication strategy of a company, adapting the content and the tone of the message to every particular cultural context; for example: a) sales force negotiation in a different cultural context; b) defining the shop experience and atmosphere (both contextual tools) in the international retail design; c) in predicting some aspects of the consumer behavior in different cultural contexts, for example LC and HC different in decision making consideration or differences in product use ; d) in describing and underlining differently the brand values in the international markets, as exploring different brand positioning among LC and HC cultures.

The scale can further be used in defining the relationship and the communication strategies towards human resources in a cross-cultural environment, identifying the different contents and tones of the communication to managers and employers in different cultural context.

However, this paper is only the first step of a broader analysis, which should be conducted involving other countries. The limits of this work can be found in the number of countries and in the number of respondents, despite the people involved in the sample are not focused in one demographic segment (i.e., students) as normally used in preliminary researches. It will be important to increase the number of countries both in the extreme of the scale (very low and very high context) and along the continuum from low to high to gain empirical evidence to Hall's theoretical continuum. We hope the new reliable and valid scale will open the door for further research in international marketing. Both in using relevant segmentation based on communication and cultural context that differentiate between cultures and examining related implications of this segmentation to consumer behavior and efficient marketing strategies.

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EFFECTIVE RESOURCE MANAGEMENT AT ECONOMIC- ENVIRONMENTAL EQUILIBRIUM POINT

Gajbiye, Ravikumar¹; Laghate, Kavita²

¹Commercial Dept., Air India Ltd. (AI), Mumbai, India

²Jamnalal Bajaj Institute of Management Studies (JBIMS), Mumbai, India

ABSTRACT

The aim of the study is to propose an econometric model of sustainable growth using forecast analysis and simple statistical techniques. The underlying fundamental principle is to equilibrate wealth potential of the natural environment with the wealth created out of world economy. The global pandemic of 2019 has ushered in a new era of hope and positivity for the world economy. Historically, the progress of mankind has been charted on the bipolar axis of economic growth against environmental decline. The current **passive** phase in global trade has presented us with an opportunity to wipe out all deficits and imbalances in the economic-environmental balance sheet, and start afresh with a clean slate.

Feudal and fascist powers promote unfair trade cartelisation, creating economic apartheid among nations, driving weaker ones to debt-ridden poverty, and exposing them to socio-economic and ethno-cultural exploitation. Sustainable growth for future generations requires a revolutionary new outlook towards global economic policy and business systems, by promoting an economic-environmental policy aimed at conservation of natural resources through their optimal utilisation, without compromising economic growth.

This paper aims to allocate due importance to natural resources as the most significant component of economy, and to create an equitable income distribution system among all nations based on real ownership of resources. Environmental cost is set off against economic growth by identifying a specific equilibrating point at which pre-planned environmental deficit through allocation of natural resources is equated with planned economic activity to achieve *sufficing wealth* and sustainability in the economic-environmental world order.

Keywords: Sustainable growth, Economic-Environmental Equilibrium, NRP/GNRP/ UGNRP, GDP/UGDP, Wealth Redistribution Model

INTRODUCTION

The purpose and objective of the paper is three-fold: (1) to undermine the dominance of the ill-reputed concept of GDP as the sole indicator of economic performance, and alternatively establish a new wholesome indicator of economic growth based on the real valuation of the natural resources, (2) to

prevent creation of excess unwanted wealth out of the undesirable motive of profit-making at the cost of global poverty and unsustainable environmental costs, and (3) to ensure sustainable growth as a trade-off between ideal economic progresses and economic resource utilization, at an ideal equilibrium point.

Economic activity is possible only through utilization of natural resources. While Sarah Philipson ^(q) (2020) advocates '*value*' as the atom of the economy, the authors of this paper propound that natural resources carry the genetic code (DNA) for a nation's economic growth and are the building blocks of world economy. Scarce natural resources are depleted indiscriminately to produce undesirable surplus of goods causing economic fluctuations and price instability, in addition to environmental hazards through non-disposable wastage. An economic-environmental ecosystem driven towards sustainable growth in a planned manner will insure against resource-depletion and ensure long-term survival of mankind on the planet.

THEORETICAL BASE FOR THE RESEARCH STUDY

The research paper draws heavily from critical community-focussed economic theories and concepts that propose an idealistic economic world devoid of inequality and oppression.

Common Ownership for a social cause: Extreme poverty compromises environmental protection. Lack of well-defined private property rights over natural resources leads to overexploitation and degradation of resources (Abdelgalil and Cohen ^(a), 2009). "Common Usage" proposes that all human beings, irrespective of geopolitical, ethnic, cultural and racial differences, have equal proprietorship right over natural resources.

Theory of Common Resources: In order to prevent depletion of common resources and to make their usage both economically and environmentally sustainable, Garrett Hardin ^(l) proposed government-ownership or privatization, while Elinor Ostrom ^(p) proposed sharing of resources among the stakeholders. Ostrom analyses economic governance of the common resources to counter Hardin's theory of "Tragedy of Commons". Zhao F. ^(w) et al (2018) propose that collaborative management approach is the most suitable way to manage common-pool resources.

Cumulative Wealth Pool: This is an integrated holistic approach to map aggregate economic status integrated with the concept of a cumulative resource pool of economic potential based on "common ownership" and "common pricing" of the natural resources, and the profit-sharing of excess "created wealth", as a result of economic activity.

LITERATURE REVIEW

Osarenkhoe ^(o) and Fjellström (2017) researched organised cluster competitiveness using organization of collaborative networks of private and public partnership. This paper propounds the acute need for open innovation ecosystems that involve creating values and value capturing processes, and managing them efficiently (Yaghmaie ^(v) and Vanhaverbeke, 2019), through active participation from universities, research institutes and governmental agencies. Delistavrou ⁽ⁱ⁾ et al (2019) while studying ethical consumption conclude that rich consumers boycott consumer activism campaign for ethical purchasing, while ethical consumers of firms engage in discursive activities like adopting ethical strategies. Studying innovation ecosystems is crucial to facilitate social or societal changes.

The differentiation in the concept of a 'Sharing Economy' (Correia ^(g) and Meneses, 2020) lies in collaborative and access-based consumption. Adamashvili, N ^(b) et al (2019) studied global challenges, particularly issues such as depletion of natural resources, limited usability of land, environmental and climate changes, constant increment of world population in need of nourishment and required improvement of the quality products that can simultaneously reduce the harmful impact on the environment.

Trigkas ^(t) (2020) considers bioeconomy as a basic component of sustainable development, as it uses new knowledge and innovation. A study of economic processes in the context of environmental conservation form an integral aspect of "Sustainability Marketing" as propounded by Sharma ⁽ⁱ⁾ et al (2021). Veronika ^(u) et al (2020) researched the Educational Environmental Programs (EEP) in Greece, which engages educational professional at school level, for achieving critical goal of sustainable development. While Anagnostopoulou ^(c) & Evgenia (2020) study the conceptual framework for examining the complementary assets of SMEs like innovativeness & environmental collaboration that allow them to successfully implement environmental strategies, Maniatis ^(m) (2017) fights for the autonomous 4G fundamental rights to environment, to water and to containing climate change (CCC). Frederick Soddy ^(s) advocates balancing any claims on future wealth with the economy's power to produce that wealth through "Bureaus of economic statistics". Human behaviour collectively extends further to capitalist nations whose primary aim is financial profit and economic gains, at the cost of impoverishing other nations (Kahnemann, 2002). Nations with superior access to knowledge and information make other nations weaker and non-competitive by controlling and regulating dissemination of information, and manipulating corporate transparency (Akerlof et al., 2001). Economic and political decision-making on a global scale must lead to creation of wealth and creation of prosperity respectively. Wealthy nations must relinquish profits in order to give equal opportunity for weaker nations to grow and prosper (Buchanan, 1986).

The role of the global institutional bodies like the UNO and the World Bank is also questionable, as their policies favour capitalist nations in their attempt to destabilise progressive nations. These institutions lack the initiative and will-power to eliminate socio-economic inequality and to eradicate global poverty.

RESEARCH METHODOLOGY, STRATEGY AND APPROACH

The study follows a 'Grounded Theory Strategy', which is in principle, an 'Inductive Approach' that builds up a theory and explores data without a predetermined framework. It is an exploratory type of research using secondary data from panel data framework which makes it possible to allow for differences in the form of unobservable individual country effects and ability to control for individual heterogeneity. Researcher is able to control for state and time-invariant variables. The research approach in this econometric research applies an "Experimental" approach, wherein a simple model with few equations and variables is applied initially. The model is modified gradually on the basis of statistical evidence from computations. The critical factors are considered first, and additional variables are gradually added later. It combines a priori theoretical considerations with empirical observations to extract maximum information from data. Sampling method of used is non-probability sampling.

The four major macroeconomic variables used in the research design are: (i) Land which produces resources to run the economy; (ii) Population as a multiplicative factor being consumer base in economy; (iii) Agriculture Income (supra-soil asset base), and (iv) Mineral Income (sub-soil asset base) – genesis of trade and economy.

CONCEPTUAL FRAMEWORK

Valuation of the natural resources of a nation at the beginning of the economic cycle is its economic potential to generate wealth at the end of the business cycle. The combined wealth created at the end of a global business cycle creates a cumulative wealth pool. In order to dis-incentivise profit-making, excess wealth created by a profiting nation, over and above the average cumulative global wealth, is recycled into its economy in the subsequent business cycle. This inflates the economic potential of that nation, forcing less utilisation of natural resources. This cyclic process controls the overall utilization of global natural resources until cumulative wealth created equals the cumulative wealth potential.

OPERATIONAL FRAMEWORK

The diagrammatic representation of the research process is given below.

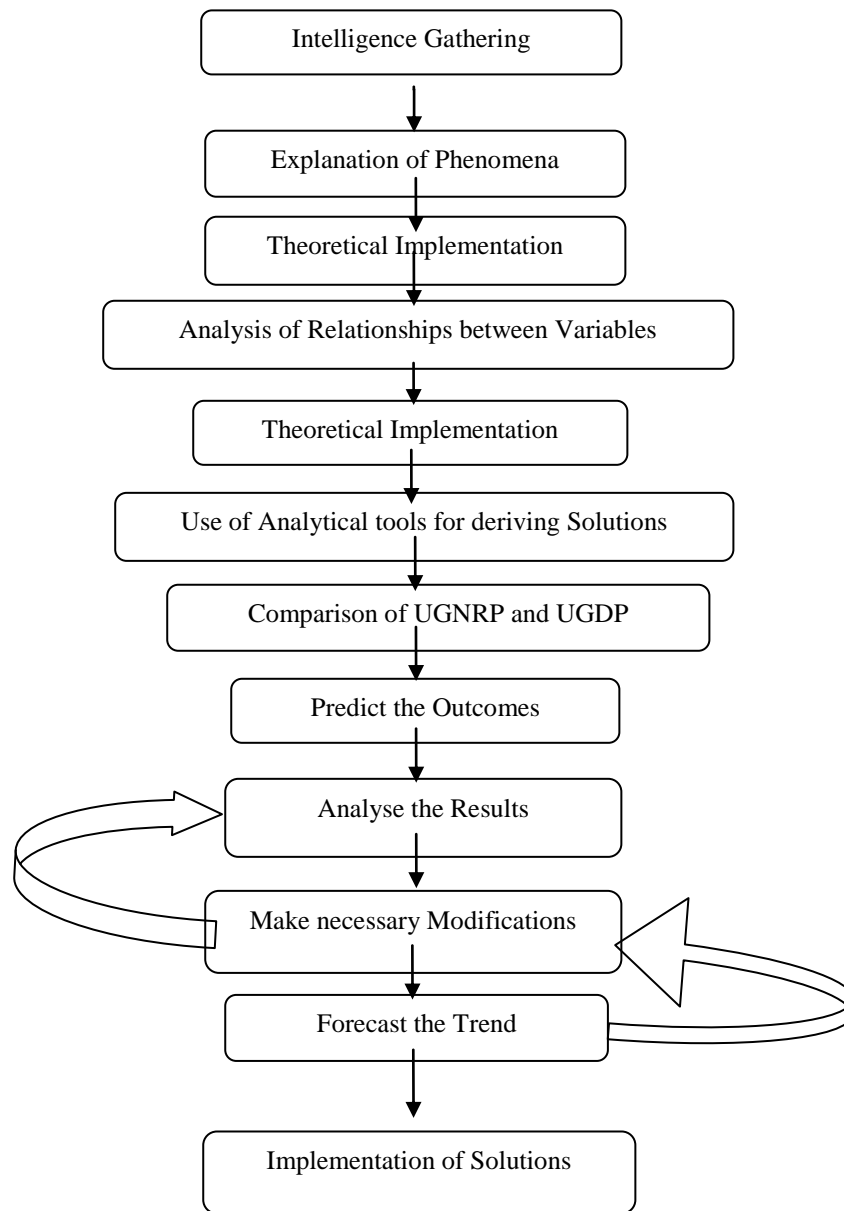


Figure 1: Research Process Flow Chart

DATA COLLECTION AND ASSIMILATION

Variables used in the research design are economic factors like GDP of nations, mineral data, agricultural revenue, variable pricing of minerals and national population.

Part 1: Calculating economic potential of nations

Data for sample study: Statistical data about various macroeconomic aspects from 64 nations is collected for use in the research process. The list of sample nations is presented below:

S	Country/Economy	S	Country/Economy	S	Country/Economy
1	United States	23	Sweden	45	Finland
2	China	24	Poland	46	Vietnam
3	Japan	25	Belgium	47	Peru
4	Germany	26	Thailand	48	Portugal
5	United Kingdom	27	United Arab Emirates	49	New Zealand
6	India	28	Nigeria	50	Czech Republic
19	Saudi Arabia	41	Pakistan	63	Zimbabwe
20	Switzerland	42	Chile	64	Central African Republic
21	Argentina	43	Bangladesh		
22	Taiwan Province of China	44	Central America		

Table 1. List of few nations used as sample size in research

Some supra-soil natural resources out of a total of 232 metals/minerals are listed below:

Abrasives	Calcareous	Ferronickel	Kyanite	Phosphate	Silica
Aggregates	Carbon	Ferrosilicon	Leucoxene	Phosphorite	Silicon
Alexandrite	Cement	Fire Clay	Lime	Pigments,	Silver
Alginate	Chalk	Flagstone	Limestone	Platinum	Slate
Alumina	Chromite	Fluorspar	Liquefied	Porphyry	Soda ash
Aluminium	Clay	Fuel oil	Lithium	Potash	Sodium Sulphate
Antimony	Copper	Gasoline	Marl (lime)	Pyrite	Strontium
Asphalt	Cyclohexane	Gold	Molybdenum	Rare-earth	Tellurium

Table 2: List of Metals/Minerals used in the Research

CONVERSION FACTOR

Measuring units for quantity may differ from pricing unit, hence common rate of measurement between quantitative and pricing units through a conversion factor is derived.

Measurement Unit	Pricing	Conversion	Measurement Unit	Pricing	Conversion
cubic meters	T	0.35	flask	lbs.	76.00
cubic meters	mT	0.39	Ton	flask	26.32
kilograms	T	0.00100	Ton	bbl	7.35
kilograms	carat	5000.00	Metric tons	mT	1.00
Metric tons	carat	5511550	Metric tons	Oz.	35274.00
thousand cubic	MMBtu	42.38	thousand 42-gallon	mT	136.00
million cubic	MMBtu	42380.00	thousand metric tons	barrels	8101.98
million cubic	bbl	7634.16	thousand metric tons	MMBtu	133.47

Table 3: Conversion Factor Table

Common Pricing: Commodity price volatility leads to a significant increase in non-resource GDP growth in economic as well as political institutions (Arezki ^(e) and Gylfason, 2011). In order to eliminate defects created by differential pricing of commodities, the concept of common pricing is adopted as the backbone of economic modelling in this paper.

A list of common prices of commodities in appropriate measurement units is given below:

Commodity	CP	Unit	Commodity	CP	Unit	Commodity	CP	Unit
Abrasives	818.0	USD/T	Cadmium	1735.0	USD/T	Ferromanganese	2281.8	USD/T
Acid Clay	250.0	USD/mT	Calcareous	10.3	USD/mT	Ferromolybdenum	5.6	USD/kg
Agate	0.5	USD/Ct	Calcite	165.0	USD/T	Ferronickel	8551.4	USD/T
Alabaster	3.5	USD/lb.	Carbon	26.0	USD/T	Ferro	612.0	USD/T
Aluminium	424.5	USD/T	Chromite	270.0	USD/T	Flagstone	400.0	USD/T
Amethyst	25.5	USD/carat	Clay	12.2	USD/T	Fluorspar	325.0	USD/T
Aquamarine	175.0	USD/carat	Copper	2000.0	USD/mT	Gasoline	170.1	USD/bbl.
Avigas	305.6	USD/bbl	Diamond	1400.0	USD/carat	Gold	1223.7	USD/oz.

Table 4: Common Price of Minerals

Economic value of a mineral: The economic value of a mineral is the product of quantity extracted, the common price, and the conversion factor. Consider the example of aluminium.

Commodity	Aluminium				
Year	Economy	Production Unit thousand mT	Common Price USD/lbs.	Conversion Factor	Economic Value (US\$ mn)
2012	USA	2070	0.94	2204620.00	4270.58
2013		1946			4014.76
2014		1710			3527.87
2015		1587			3274.11
2016		840			1732.99

Table 5: Economic Value of Aluminium

Economic value of all Minerals of one Nation (USA): Using the calculation for economic value of a mineral described above, the economic value for a given nation is calculated:

USA: Economic Value of Minerals (USD mn)					
Commodity	2012	2013	2014	2015	2016
Magnesium	74989.60	71251.11	75209.51	83566.12	85765.23
Steel	48341.50	47360.50	48069.00	42946.00	43600.00
Tripoli	33600.00	30800.00	26068.00	19740.00	26280.00
Calcium carbonate	12111.52	12111.52	12830.00	13651.12	15190.72
Gold	11256.99	11017.48	10059.44	10251.05	10011.54
Copper	7745.95	8275.59	9003.84	9136.25	9334.87

Table 6: Economic values of minerals in USA (2012-2016)

Total Economic Value by aggregation of economic value all minerals for USA, we have:

USA	2012	2013	2014	2015	2016
Total Economic Value (USD mn)	396391	391276	392487	388740	402423

Table 7: Total Economic Value of USA (2012-2016)

Total annual economic value of all sub-soil resources (metals/minerals) of a few nations:

Economic Value	2010	2011	2012	2013
United States	340271	358312	397016	359668
China	34787250	41075086	34635730	39740951
Japan	447848	462763	430174	345223
Germany	869243	882329	883093	865908
United Kingdom	655951	649894	588006	588958
India	260797	270026	279877	277234

Table 8: Annual economic value of all metals/minerals for few nations (2010-2013)

Agricultural Revenue: Agricultural revenue of few nations is tabulated below:

Country	Agriculture Revenue (USD mn)				Country	Agriculture Revenue (USD mn)			
	2010	2011	2012	2013		2010	2011	2012	2013
USA	175695.40	212095.64	200552.3	238078.51	Philippines	24578.2	28513.6	29595.1	30588.2
China	581401.12	714433.18	806398.6	893009.78	S. Africa	9870.21	10562.5	9539.29	8552.36
Japan	62983.17	66550.37	71201.49	57278.78	Malaysia	25730.9	34125.4	30795.7	29461.4
Germany	24579.23	30900.97	27721.65	35427.55	Colombia	20373.9	22972.1	23387.2	23119.5
UK	17745.54	17711.06	17644.43	19443.43	Denmark	4484.78	5230.60	6270.09	5171.29
India	312780.67	337750.49	332673.0	345139.88	Ireland	2327.64	3402.79	2587.88	3152.50

Table 9: Agriculture Revenue of nations (2010-2013)

Total Land Revenue: Total Land Revenue is the sum of the Mineral Revenue and Agriculture Revenue.

Land revenue for few nations for 2010-2013 is given below:

Country	Total Land Revenue (USD mn.)				Country	Total Land Revenue (USD mn.)			
	2010	2011	2012	2013		2010	2011	2012	2013
USA	572086	603371	593039	626819	Philippines	39480	45378	50450	58267
China	3536865	4178951	3544212	4063396	South	844157	829974	730627	820415
Japan	510831	529313	501375	402505	Malaysia	96666	106056	102262	98493
Germany	893822	913230	910815	901340	Colombia	68215	75347	78326	77862
UK	673697	667605	605650	608406	Denmark	20507	20039	21298	19334
India	573578	607776	612550	622380	Ireland	104303	104818	102759	996233
France	157149	160277	144922	143577	Egypt	117279	123006	112950	111054
Brazil	1880241	2024291	2046418	2070344	Venezuela	963101	959501	961010	893141
UAE	108744	126193	128449	136240	Kenya	135719	155532	166721	196477
Austria	104581	105095	111321	110692	Bahrain	17761	17379	17608	17040
Iran	689363	755945	774778	762158	Zimbabwe	15423	15927	21155	19081

Table 10: Total Land Revenue of nations (2010-2013)

Population data: Population data of a few nations for the years 2010 to 2013 is given below:

Population	2010	2011	2012	2013	Population	2010	2011	2012	2013
USA	309.35	311.66	314.00	316.20	Philippines	93.73	95.28	96.87	98.48
China	1337.71	1344.13	1350.70	1357.38	S. Africa	50.98	51.73	52.51	53.31
Japan	128.07	127.83	127.63	127.45	Malaysia	28.11	28.64	29.17	29.71
Germany	81.78	80.27	80.43	80.65	Colombia	45.92	46.41	46.88	47.34
UK	62.77	63.26	63.70	64.13	Denmark	5.55	5.57	5.59	5.61
India	1230.98	1247.24	1263.07	1278.56	Ireland	4.56	4.58	4.59	4.60
France	65.03	65.34	65.66	66.00	Egypt	84.11	85.90	87.81	89.81
Brazil	196.80	198.69	200.56	202.41	Venezuela	29.03	29.46	29.89	30.32
Italy	59.28	59.38	59.54	60.23	Pakistan	170.56	174.18	177.91	181.71
Canada	34.01	34.34	34.75	35.16	Chile	16.99	17.15	17.31	17.46
Norway	4.89	4.95	5.02	5.08	Tanzania	46.10	47.57	49.08	50.64
Austria	8.36	8.39	8.43	8.48	Bahrain	1.24	1.28	1.30	1.32

Table 11: Population data of few nations in mn (2010-2013)

Calculating GNRP- Wealth potential of a nation: For calculating GNRP of a nation, the statistical data required is Mineral Revenue, Agriculture Revenue, and Population.

GNRP is a simple mathematical product of the Land Revenue and the Population, adjusted for a population factor 0.001 (population in mn/1000). Thus,

$$\text{GNRP (USD mn)} = \text{Land Revenue (USD mn)} * \text{Population (mn)} * 0.001$$

Annual GNRP of USA for period 2012-2016 is calculated as below:

USA	Mineral Revenue (USD mn)	Agriculture Revenue (USD mn)	Land Revenue (USD mn)	Population (mn)	Pop Factor	GNRP (USD mn)
2012	396391	200552	596943	314.0	0.001	187439
2013	391276	238079	629354	316.2	0.001	199005
2014	392487	217724	610211	318.6	0.001	194391
2015	388740	189784	578523	320.9	0.001	185646
2016	402423	211535	613958	317.0	0.001	194880

Table 12: GNRP value for USA (2012-2016)

Part 2: Creation of global wealth pools (UGNRP and UGDP)

The paper proposes creation of two cumulative global wealth pools of nations, calculated once at the beginning and once at the end of a given economic cycle. These are:

UGNRP: Summation of GNRP of all nations at the beginning of the economic cycle

UGDP: Summation of GDP of all nations calculated at the end of the economic cycle.

A list of GNRP values of few nations under study for the period (2010-2013):

Nation	GNRP (USD mn)				Nation	GNRP (USD mn)			
	2010	2011	2012	2013		2010	2011	2012	2013
USA	159613	177775	187439	199005	Philippines	3700	4323	4887	5735
China	47312822	56170547	47871506	55155726	S. Africa	430347	430262	384597	437378
Japan	65422	67664	63990	51297	Malaysia	2718	3037	2983	2925
Germany	73094	73310	73253	72689	Colombia	3132	3497	3672	3685
UK	42285	42232	38580	39016	Denmark	114	112	119	108
India	706063	758041	773691	795743	Ireland	4756	4797	4713	4581
France	10219	10473	9516	9475	Egypt	9864	10566	9919	9970
Brazil	370024	402200	410432	419054	Venezuela	27957	28270	28728	27077
Canada	38244	40664	44469	50996	Chile	4870	4777	4548	4523
Russia	1402766	1455942	1567044	1683159	Bangladesh	3948	4373	4378	4678
Korea	50388	51551	59036	59367	C. America	849	968	970	1021
Australia	5476	6258	6190	6138	Finland	446	514	446	462

Table 13: GNRP Value of nations in USD mn (2010-2013)

A list of GDP values of few nations under study for a given period (2010-2013):

Country	GDP (USD mn)				Country	GDP (USD mn)			
	2010	2011	2012	2013		2010	2011	2012	2013
USA	1496437	1551792	1615525	1669151	Philippines	19959	22414	25009	27183
China	6100620	7572554	8560547	9607224	South Africa	37534	41641	39632	36662
Japan	5700098	6157460	6203213	5155717	Malaysia	25501	29795	31444	32327
Germany	3417095	3757698	3543984	3752514	Colombia	28701	33541	36966	38019
UK	2429680	2608825	2646003	2719509	Denmark	32199	34400	32714	34358
India	1656617	1823050	1827638	1856722	Ireland	22134	24059	22581	23927
France	2646837	2862680	2681416	2808511	Egypt	21888	23600	27937	28858
Brazil	2208872	2616202	2465189	2472807	Venezuela	39319	31648	38128	37100
Canada	1613464	1788648	1824289	1842628	Chile	21853	25225	26712	27838
Russia	1524916	2031769	2170144	2230625	Bangladesh	11527	12863	13335	14999
Korea	1094499	1202464	1222807	1305605	Central	15354	17491	18969	20228
Australia	1142877	1390557	1538194	1567179	Finland	24780	27367	25670	26998

Table 14: GDP Values of nations in USD mn (2010-2013)

Summary Table of UGNRP and UGDP of 64 Nations

Year	2010	2011	2012	2013
UGNRP	52007958	60955507	52787419	60269486
UGDP	62719513	69651069	71119645	73025370

*Figure 2: UGNRP and UGDP Values of 64 nations for 2010-2013 in USD mn**Part 3: The Wealth Redistribution Model (WRM)*

Ecological modelling: Ecological models involve use and depletion of natural resources (Daly ^(h) and Costanza, 1987). Multi-policy models are similar to computable general equilibrium (CGE) models e.g. Sudan model by Lisa Abdelgalil and Sulemian Cohen.

This paper proposes a dynamic economic model covering efficient and optimal allocation of scarce resources, leading to sustainable solutions. The “Working Principle” is:

Wealth Created must equal Wealth Potential

Wealth potential is measured at the beginning of the economic cycle, while wealth created is measured at the end of the economic cycle. Equilibrium is achieved when both measures are equal. Any excess wealth created is ploughed back into the economic potential (UGNRP) of the successive business cycle until UGNRP equals UGDP, and no excess wealth is created.

OPERATIONALIZING THE WEALTH REDISTRIBUTION MODEL (WRM)

A pictorial summary of the wealth redistribution process is presented in the chart below:

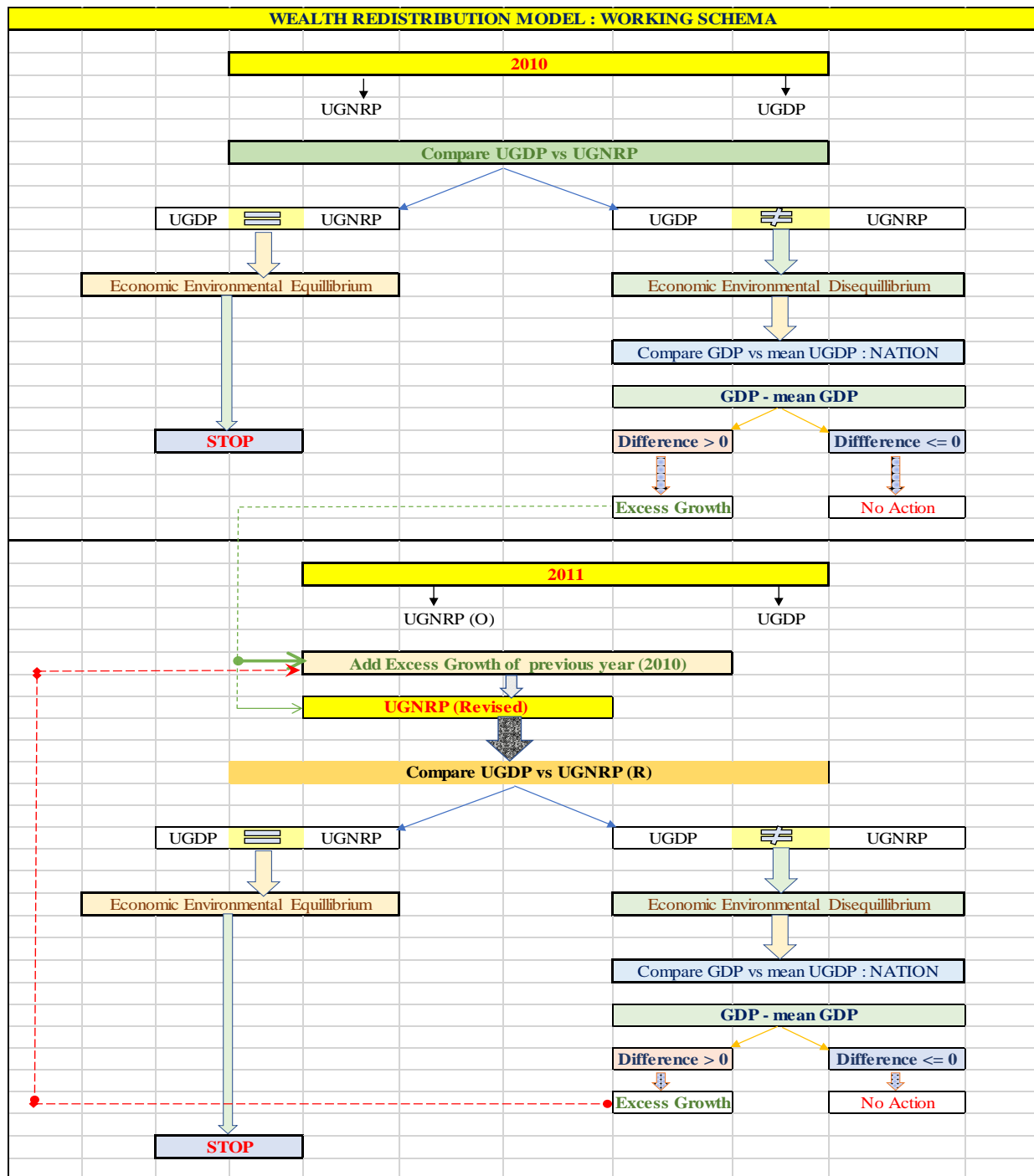


Figure C: Diagrammatic Representation of the Wealth Redistribution Model (WRM)

OPERATIONAL FEASIBILITY OF THE ECONOMETRIC MODEL

In order to make the Wealth Redistribution Model practically feasible in the context of deriving the “Economic-Environmental Equilibrium point” for global sustainable growth, we first need to identify nations with excess growth over and above mean UGDP. The difference between the GDP value and mean UGDP value is tabulated below for all 64 nations for base year 2010. The nations with positive value are the nations that exhibit excess growth.

Excess Wealth calculated as +ve difference (GDP - mean UGDP): Year 2010							
USA	13984411	Turkey	-208084	Philippines	-780370	New Zealand	-833380
China	5120659	Netherlands	-143571	S. Africa	-604612	Czech Rep	-772945
Japan	4720137	Saudi Arabia	-451754	Malaysia	-724944	Greece	-680599
Germany	2437134	Switzerland	-398752	Colombia	-692943	Romania	-811963
UK	1449719	Argentina	-556334	Denmark	-657966	Iraq	-841444
India	676656	Taiwan	-602432	Ireland	-758618	Algeria	-818754
France	1666876	Sweden	-491583	Egypt	-761073	Qatar	-854839
Brazil	1228911	Poland	-500640	Venezuela	-586770	Kazakhstan	-831914
Italy	1145097	Belgium	-496412	Pakistan	-811808	Kuwait	-979638
Canada	633503	Thailand	-638856	Chile	-761423	Hungary	-849705
Russia	544955	UAE	-690081	Bangladesh	-864682	Kenya	-939961
Korea	114538	Nigeria	-610899	C. America	-826420	Luxembourg	-926749
Australia	162916	Norway	-551434	Finland	-732161	Tanzania	-948553
Spain	451627	Austria	-589749	Vietnam	-864029	Bahrain	-954248
Mexico	71168	Iran	-512171	Peru	-832432	Zimbabwe	-969909
Indonesia	-224867	Israel	-746206	Portugal	-741658	C. Africa	-977975

Table 15: Difference between GDP and Mean GDP- 64 nations (base year 2010)

Note: The excess wealth of highlighted nations is added to their individual GNRP values in the subsequent business cycle (2011). This dynamic process continues in every subsequent cycle until UGDP equals UGNRP. This is the Economic-Environmental Equilibrium point.

Part 4: Forecasting the equilibrium point

Herman Daly's "Steady-State Economics" (1991), and the static neoclassical theory and its dynamic optimization (Matti, ⁽ⁿ⁾ 2001) infer that stability is affected by adjustment of production in a profit-seeking way. Adjustment stability leads to the profit maximization. This is the basis of projecting the EEE point in the proposed econometric model.

Step 1. GDP forecast for 2017 and 2022. The IMF-projected GDP values for world economy for the year 2017 and 2022 are given below.

Projected GDP of World Economy			
World GDP Nominal (USD bn)		GDP PPP (bn Int \$)	
2017	2022	2017	2022
77,988	99,956	126,688	168,202
Projected GDP of 64 nations (95.63 % of World GDP)			
64 nations GDP Nominal (USD bn)		GDP PPP (bn Int. \$)	
2017	2022	2017	2022
74,580	95,588	121,152	160,852

Figure 4: Projected value of World GDP

Step 2. Graphic Depiction of the Forecast Value of UGDP: Using graphical Linear Trend Analysis method on UGDP values for 2010-2016, and forecast UGDP values for 2017 and 2020, UGDP values for the intermittent period 2017 to 2022 is obtained.

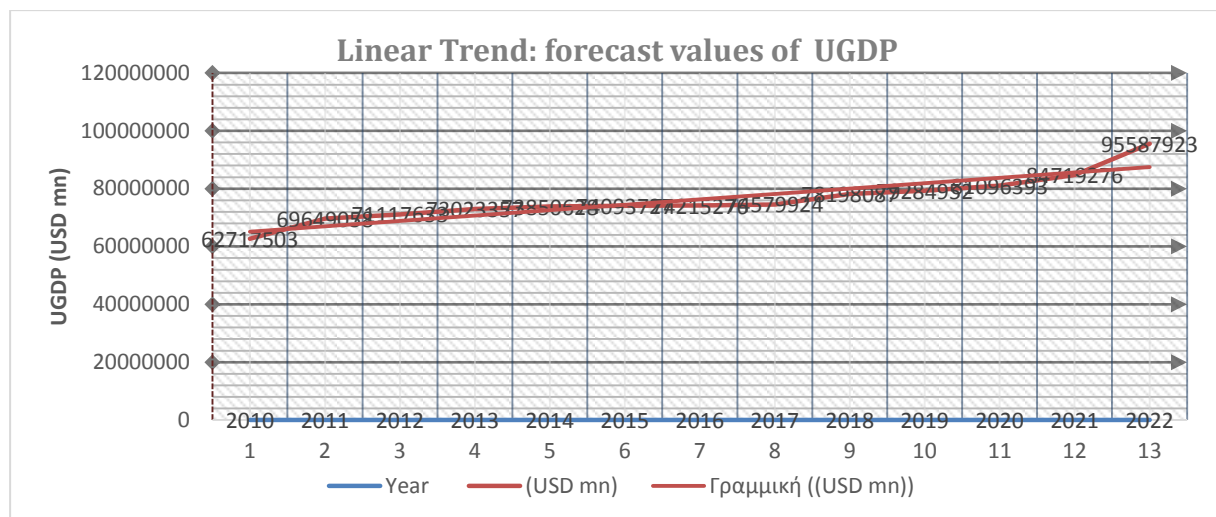


Figure 5: Linear Trend Analysis of UGDP Growth

UGDP values for the intermittent period 2017 to 2022 are presented below.

UGDP values							
Actual				Forecast			
Year	(USD	Year	(USD	Year	(USD	Year	(USD
2010	62717503	2014	73850628	2017	74579924	2020	81096393
2011	69649058	2015	74093727	2018	78198087	2021	84719276
2012	71117633	2016	74215276	2019	79284952	2022	95587923
2013	73023357						

Figure 6: Forecasting UGDP values by linear trend method (2017-2022)

Step 3. Projecting UGNRP value for 2022: Using the Growth Rate of UGDP forecast for 2022 over 2014, the UGNRP value for 2022 is calculated as given below.

Projected for 2022 (USD mn)		Projected for 2022 (USD mn)	
Projected UGDP 2022	95287011	Projected UGDP	95287011
Current UGDP 2014	73850628		
Rate of Growth	29.0%		
Current UGNRP 2014	56432279	Projected UGNRP	72812695
Projected UGNRP 2022	72812695		

Figure 7: Projected Value of UGDP and UGNRP for year 2022

Part 5: Planning for sustainable growth

There are two methods for planning economic activity to achieve sustainable growth under ideal conditions of economic-environmental equilibrium.

Method 1: UGNRP value in 2022 must equal the projected UGDP value

Projected UGDP = 95287011 USD mn. = Planned UGNRP

YEAR	UGDP \$bn	YEAR	UGDP \$bn	YEAR	UGDP \$bn
2010	62718	2013	73023	2017	74577
2011	69649	2014	73851	2018-21	No data
2012	71118	2015-16	No data	2022	95287

Figure 8: Projected UGDP equals Planned UGNRP (Method 1)

Method 2: UGDP in year 2022 must be equal to the projected UGNRP value

Projected UGNRP = 72812695 USD mn. = Planned UGDP

YEAR	UGNRP \$bn	YEAR	UGNRP \$bn	YEAR	UGNRP \$bn
2010	52006	2013	99033	2017	97027
2011	95362	2014	96082	2018-21	No data
2012	90727	2015-16	No data	2022	72813

Figure 9: Projected UGNRP equals Planned UGDP (Method 2)

MONITORING ECONOMIC ACTIVITY FOR GDP GROWTH TO MATCH GNRP POTENTIAL

Nations are free to choose either of the two methodologies advised below in order to achieve equilibrium between GDP and GNRP for sustainable growth objectives.

Method 1: To plan resource utilization (Planned wealth potential GNRP) at the beginning of the year 2022 in order to achieve the wealth to be created (Projected GDP) at the end of 2022.

Method 2: To project economic wealth potential (Projected GNRP) by fixing resource quantity to be utilized in 2022, and planning economic activity with regular monitoring to ensure wealth created (Planned GDP) matches the potential wealth (Projected GNRP).

POLICY FORMULATION AND RECOMMENDATIONS

Public policies can be powerful in shaping consumers' behaviour (Barros ⁽ⁱ⁾ and Pádua, 2019). Global bodies governing world economy policy (UNO, WB) must revamp institutional policy for natural resource accounting, and aim for poverty reduction and equitable growth. It is also proposed to replace the structural complexity of the global financial institutions like the UNO and the World Bank with less complex and more humanity driven institutes. Under the leadership of an ethically and societally driven developing nation like India a new economic order can be launched. The various premium statistical institutes in India can lend operational and functional support to control and regulate natural resources of the world, and lead a planned sustainable economy for the future of the planet and mankind.

IMPLICATIONS OF RESEARCH STUDY

Market dynamism caused by economic fluctuations in world trade involving macro-dynamic and macro-statics mechanisms is the major cause of economic upheavals like recessions and depressions. This paper advocates a new dimension to world economy, by proposing a revolutionary alternative to the different socio-politico-economic states of capitalism, socialism, and mixed economy - a middle path of macro-constancy.

RESEARCH FINDINGS AND ORIGINALITY OF PAPER

Three new original path-breaking concepts are introduced in the research paper.

- (i) Economic Growth Indicator (GNRP) based on valuation of natural resource
- (ii) Wealth Redistribution Model (WRM) for regulating excess economic growth
- (iii) Economic-Environmental Equilibrium (EEE) point of sustainable growth

LIMITATIONS IN PRACTICAL IMPLICATIONS

A consensual agreement of all nations participating in world economy is mandatory. Global economy is not a laboratory or an experimental stage for arbitrary testing of the proposed model. Each nation will have to be sensitised to the idea of the new world economic order. Next, clusters of nations with shared geo-political, socio-economic and ethno-demographic characteristic will be part of the experiment study. Finally, based on the results of the steady equilibrium state achieved in cluster economies for a period of time, the entire world can be brought under the gambit of the new economic order. It is a slow, gradual, evolutionary process, but the change in world economic order is inevitable for the better of mankind.

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BLOCKCHAIN TECHNOLOGY AS A MECHANISM FOR TRANSPARENCY AND ACCOUNTABILITY

Gonçalves, João;

Student, Universidade do Minho, U.M, Braga, Portugal

ABSTRACT

Purpose: The purpose of this paper is to explore the application of blockchain as a tool for self-transparency within organisations. Furthermore, it is also intended to show what can be the effects of transparency provided by blockchain technology on organisations and in regard to personal accountability, namely on the process of giving accounts.

Design/methodology/approach: The method used is based exclusively on qualitative research using an inductive approach. The research starts with a literature review on the topic of accountability to understand the major issues. The literature observed about blockchain and the observance of the successful example of its use on bitcoin are the bedrocks that will support building the theoretical bases and conclusions of this study.

Findings: Clear evidence is shown, and, like what happened in the past with the application of technologies in accounting, blockchain has the potential to improve the transparency in organizations. However, it seems that blockchain by itself will not have any influence on the personal accountability of those in charge of making decisions.

Research limitations/implications: This study has a limitation due to the lack of practical blockchain application on the use that this study proposes. The observance of the technology working in the way this paper suggests could enrich the study and make the conclusions much stronger.

Keywords: Blockchain, accountability, technology, accounting, triple-entry, transparency.

INTRODUCTION

According to Hopwood (1990), those involved in the business world have been subjected to different needs. Among such dependencies is the use of technologies, which have been recognized by different players as being crucial in the process of design and organisation of different kinds of entities. A growth in the awareness of technological dependence in business has been taking place, especially due to the internationalization of business life, leading to the adoption of new models of organization and communication as well as in the way power and authority are used.

To fulfill the purpose of representing the reality of organisations and fulfill accountability, which is one of the most abstract and important concepts in accounting (Schweiker, 1993; Sinclair, 1995), the craft urgently needs to be conducted in an environment less biased and free of ulterior motives.

According to Power (2000), the growing demand for public management models, which place high emphasis on accountability and transparency, have given rise to the audit.

The audit through the legal certification of accounts is, along with accounting, a practice of transparency, which gives priority to responsibility. However, both have some technical limitations that do not protect the accountee. Currently, according to the Association of Chartered Certified Accountants (ACCA) (2020) and the Institute of Chartered Accountants in England and Wales (ICAEW) (2017) the financial statement preparers have the power to modify and eliminate accounting records. On the other hand, auditors have the ability to limit the scope of the audit as the assessment of the level of materiality is carried out in accordance with their judgment and professional integrity.

Historically, the concepts of accountability and responsibility have been intimately related to accounting. However, these concepts are nowadays used in a more bilateral way. More than ever before the common system of accountability, in which government authorities hold entities and citizens accountable, is being emphasized with a greater level of accountability, in which citizens hold politicians accountable. The modern democratic systems are strongly sustained in good practices of governance. Therefore, mechanisms that encourage public accountability are a forceful contribution for that. However, political speech has been using both terms without taking care of the true meaning of these concepts (Bovens, 2005).

According to Power (2000), a good level of transparency in organizations can only be achieved through internal changes. For that, it is necessary to direct these changes towards the implementation of self-transparency mechanisms that limit the influence and the distortion power of financial statements by their preparers and simultaneously protect the professionals of accounting and auditing from pressure, ensuring that the limitations imposed by the mechanisms of self-transparency further compel the financial statements correspond to the daily economic, financial and social reality of the entities as alerted by Hopwood (1990).

Today, two decades after the previous reflections of Power (2000), according to CAI (2021) and ACCA (2020), as a result of blockchain technology, the mechanisms of self-transparency are now more developed and with the potential to provide more transparency to organizations.

LITERATURE REVIEW

Accountability

According to Schweiker (1993), one type of accountability discourse implies that the formation of

human relationships that are constituted over time are based on the feeling of trust. This makes accountability on the part of organizations and institutions confusing given the difficulty of individually verifying humanity and intrinsically ethical and moral principles. However, those who speak for them, perform their functions with personal awareness of these same principles. A contract is nothing more than an agreement that respects the ethical, moral and justice principles of all the parties that sign it.

Modern thought founded the ideology of self-realization and individuals quickly accepted this ideology as a moral principle. Centuries of reflections by philosophers and theologians on morals, economics and social justice have been ignored in favor of the self-realization of individuals and consequently the self-realization of organizations (Schweiker, 1993). In this way, the moral principles of contractual relations of organizations have, for many accountants, come to be enforced by the maximization of interests in order to respect the ideology of self-realization.

In the middle of irony and at the epicenter of truth is the perspective of Sinclair (1995) when compares the camouflage characteristics of a chameleon with the accountability of individuals who are accountable. Generically speaking, the notion of accountability of these individuals depends on the type of accountability for which they respond to and, it changes mainly with the type of discourse they use. The discourse is mostly camouflaged by institutional accountability, and true by personal accountability.

It is not the aim of this article to discredit or point the finger at individuals who are accountable. On the contrary, it is intended to reveal the dilemmas of accountees who, according to Sinclair (1995) in performing their duties are highly pressured by the attempt to define the abstract concept of accountability through the imposition of administrative reforms and according to Schweiker (1993) act in a context of complex economic, political and social conditions, dominated by the ideology of self-realization capable of distorting the discourse in order to maximize interests.

From now on, I will refer to the concept of accountability according to the important differentiation of how accountability is perceived and exercised:

- Abstract accountability: concept of accountability in its humble nature that goes beyond institutional accountability practices and is correlated with moral, ethical principles and that involves the “my-self” of the accountable.
- Artificial accountability: concept of accountability perceived after administrative reforms, where accountability is associated with accountability through the measurement of results obtained and the fulfillment of objectives such as a mere accounting number.

Sinclair (1995) also identifies two types of discourse used by individuals who are accountable, the structural discourse that is connected with the artificial concept of accountability and personal

discourse, which is close to the abstract concept of accountability and that involves going beyond responsibilities and institutional objectives aspects, which is an important component of ethics and morality, as defended by Schweiker (1993).

The origin of the artificial concept of accountability and thus the attempt to institutionalize an abstract concept of accountability do not seem to have achieved the objectives to which they set themselves as it was point out by Sinclair, (1995, p.219 and 220) when reflecting on Hopwood 's (1984) research:

“The efforts to secure better internal management accountability using accounting technologies may not necessarily lead to greater public accountability, instead of giving “selective visibility” to some organisational outcomes”.

According to Sinclair (1995) administrative reform, the attempt to institutionalize accountability and the consequent appearance of the artificial concept of accountability brought to accountability the determination of the responsibilities of individuals based on the forced measurement of their performance. In line with this view, it is also defended by Schweiker (1993) when referring to the ideology of self-realization

Messner (2009) also states that artificial accountability, insofar as it seeks accountability without any limits being set, can be highly damaging to account providers as individuals who have to deal with “myself” but yet, it can be disadvantageous to the very necessary and important act of accountability. Accountability involves individuals who have a set of personal capabilities that have nothing to do with the actions and decisions taken and for which these individuals have to respond. For example, the ability to make the accountable behaviors and decisions comprehensible involves communicating that he understands himself and that the forum of accountability to those who are accountable is able to understand him.

Another issue arises from the search for responsibility without imposed limits are identified by Sinclair (1995) and Messner (2009), which occurs when multiple forums of responsibility, with multiple and conflicting interests intend to hold individuals accountable. Generally, in these situations, at some point, the individuals who are accountable will, due to the confusion caused by the forums, begin to camouflage their discourse, as stated by Sinclair (1995). In addition to these issues, there is a determined and complex human limitation existing between their experiences and actions taken, that does not always allow the individual to be able to explain certain actions in detail. This limitation can be better understood according to a statement of an interviewee in Messner's work (2009, p.925):

“I cannot explain everything I have done, and I cannot tell a coherent story of who I am and what I have experienced because my experience and conduct have not been motivated exclusively by my conscious efforts and

deliberations and because the minutiae and complexity of what happens will often exceed my recognition and memory”.

Thus, the lack of limits on accountability raises the existence of the great possibility that individuals will be judged by their lack of personal capability when in fact the actions taken and for which they should answer had nothing wrong with them.

Politicians and public managers in carrying out their duties have numerous responsibilities since they are responsible for the decisions they make and are still responsible for the powers and tasks they delegate. The election of a politician or the appointment of a public manager is naturally associated with their individual responsibility, and so, generally, when they make mistakes, these individuals are reticent to act according to principles of abstract accountability and, when they have the integrity to do it, they are usually involved in public defamation by their opponents and mainly because of the wrong way in which the public now demands accountability.

The fears previously described, and the whole environment in which accountable individuals live (ideology of self-realization, pressure from methods imposed by administrative reforms, complex economic, social and political contexts), often result in the option of artificial accountability and as a result of this choice, problems arise that Bovens (2005) identifies as “Accountability as a blame scheme” and “Who is the accountable?”.

Technological innovations in accounting and blockchain

According to Deshmukh (2006) and Arnaboldi, Busco, and Cuganesan (2017), with the arrival of the Internet, there was a dramatic transformation of corporate entities and economic and financial systems. According to Deshmukh (2006), the Internet has brought digital mechanisms to accounting, such as databases, specialized accounting systems, resource planning and management systems such as ERP software, shared networks, among others. The digital revolution has affected and continues to directly affect accounting, however, this evolution has not happened in all fields of accounting with the same speed, and in terms of registration and taxation the evolution has occurred at a frantic pace, while some issues related to responsibility and accountability have been following the same path of the last few years, and therefore they have been forgotten and placed on the bookshelf.

Demirkan S, Demirkan I, and Mckee (2020), ACCA (2020) and Chen G., Xu, Lu and Chen S. (2018) identify that today there is the great probability of witnessing a radical new technological change with blockchain.

According to Fanning and Centers (2016) blockchain technology has been overshadowed and often confused with cryptocurrencies. Although blockchain is the technology that successfully makes bitcoin's modus operandi possible, blockchain has multiple possibilities of application as, in fact, it's mentioned in a later section of this article.

Blockchain is undoubtedly a pure accounting technology and has the capacity to innovate accounting in several aspects, making it more effective and transparent (Cai, 2021; ACCA, 2020; ICAEW, 2017).

Many papers published by academic researchers and accounting associations explain that blockchain is a technology where participants in a network, through computational cryptography, chronologically validate records of transactions that occur between participants in that network. Once validated on the network, the records are added to a block where they are stored exactly as if they were a file. In the registries, all the information of the transacted facts are kept, and the possibility of these records being deleted is null and the possibility of these same records being able to be changed is very small (Cai, 2021), (ACCA, 2020), (Liu, Wu and Xu, 2019), (Zheng, Xie, Dai, Chen and Wang, 2018), (Bible, Raphael, Taylor and Valiente, 2017), (Dai and Vasarhelyi, 2017), (Cai and Zhu, 2016), (Pilkington, 2016) and (Swan, 2015).

For a better understanding of how a blockchain works, observe the following illustration:

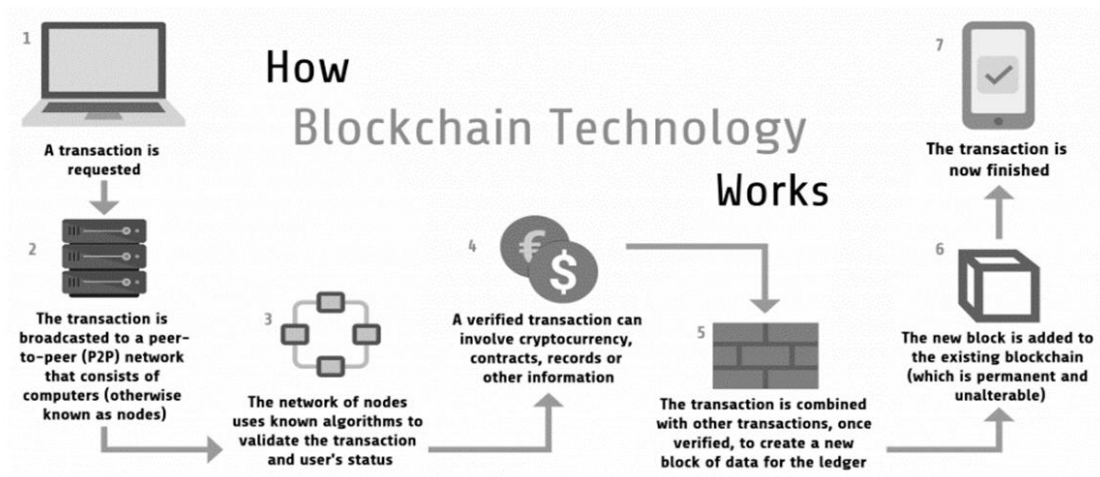


Figure 1. How a blockchain system works. Source: IP Specialist (2019).

Bible *et al.*, (2017) identify that a blockchain has a diversity of potential configurations that can be adaptable for the most diverse purposes and needs. In this way, some of the possible configurations are presented in the next table.

Network resources on which the blockchain operates	User permissions
A blockchain with a public network configuration, such as the bitcoin blockchain, allows anyone to join the network without requiring any permission or invitation.	A public blockchain offers the same permissions to all users, which means that all participants in the network have the option to carry out transactions and participate in the process of validating transactions made by other users.
A blockchain that is configured using a private network proposes that only users who have an invitation or permission can be part of that network.	A private blockchain allows users' permissions to be configured according to the needs for which the blockchain was created. This concept of private network implies that in addition to having a selection of network participants, these participants may have different permissions. In this way, user permissions can be uniquely assigned to each user on the network, for example, a given user may be allowed to add blocks of transactions to the network, but may not be allowed to validate any transactions.

Table 1. Possible blockchain configurations. Built by the author.

Blockchain as an accounting tool

According to ICAEW (2017) and ACCA (2020) blockchain has the potential to change the way individuals and entities trade and consequently transform economic and financial systems.

For accounting, blockchain means a distributed ledger where the registries are validated with the consensus of the blockchain users and a distributed ledger where the registries can't be deleted or changed, and their application can enhance the accounting operations making them more transparent (Cai, 2021), (ACCA, 2020), (Carlin, 2019), (Bible *et al.*, 2017) and (ICAEW, 2017).

A blockchain has a multiplicity of possible areas of application such financial services, supply chains, registration and notary, cybersecurity, education, pharmaceutical and medical services and the fight against counterfeiting. To know in detail how these applications work, see the papers of (Kouhizadeh, Saberi and Sarkis, 2021); (ACCA, 2020); (Demirkan *et al.*, 2020); (Karajovic, Kim and Laskowski, 2019); (Byström, 2019); (Chen *et al.*, 2018); (Bocek, Rodrigues, Strasser, and Stiller, 2017; ICAEW, 2017); (Ekblaw, Azaria, Halamka and Lippman, 2016); (Fanning and Centers, 2016); and (Nakamoto, 2008).

For the purposes of this article, and in order to address the core issues that this work intends to reflect on, the application of blockchain as an accounting tool and as a transparency mechanism will be addressed.

ACCA (2020) and ICAEW (2017) state that currently, several governments and entities are already considering the benefits of organizing transaction records using blockchain. If we think about the

generalized use of blockchain reconciled with the technology of smart contracts, we find that we may be facing the complete elimination of the need for certified accountants to carry out the tasks of archiving and recording transactions. With blockchain, transactions could now be validated by the user network and registered in their respective class via a smart-contract.

Since all validated transactions are chronologically stored in a distributed ledger that is unalterable, at the file level the impact is logically beneficial. However, with regard to registry, this assessment is much more complex, since we are facing the modification of one of the most important accounting principles, the double-entry system. According to (CAI 2021) the double-entry method was made known to the world by Luca Pacioli and has been used for more than 600 years. Grigg (2005) in convergence with (CAI 2021) identifies that in the double-entry system the accounting movements are registered by different users in different databases with the goal that the registration of user "A" confirms the registration of user "B" and vice-versa.

In the accounting of the future, a change in these settings is foreseen with a so-called "triple-entry system". The triple-entry system is in line with the registration method that is provided by the widespread use of blockchain, where the transacted facts are recorded in a single database, but the registration is validated by thousands of users (CAI 2021; ACCA 2020; Karajovic, *et al.*, 2019; Carlin, 2019; ICAEW, 2017; Tyra, 2014; and Grigg, 2005).

According to CAI (2021), the concept of triple-entry is not recent and dates back to about two decades prior to the creation of the first blockchain, the bitcoin blockchain. However, it should be noted that although the introduction of the concept of triple-entry was primarily presented through the works of Ijiri (1982) and Ijiri (1986), the view of the concept presented in these works is in no way related to the view of the concept of triple-entry that was later redefined by Grigg (2005) and which is currently being studied and which is largely connected to peer-to-peer networks and inevitably related to blockchain.

In the Ijiri (1986) research the triple-entry system aims to make financial statements assist managers in their decision-making and for this it assumes the existence of a third record that aims to explain the provenance of the results over time. According to Skole-Sorensen (2016, in Carlin, 2019, p. 306) the concept of triple-entry introduced by Ijiri was never of practical use and, years later it was severely criticized by Fraser (1993).

According to Cai (2021) and Carlin (2019) the paper by Grigg (2005) completely reformulated the concept of triple entry initially modeled by Ijiri.

Grigg (2005) states that the existence of a ledger by each agent that carries out transactions is unnecessary and can be replaced by a private key that allows signing the transactions in a single ledger. These transactions, after being signed with the private key of the sender and recipient of the transaction, will be validated by a cryptographic system and this validation is considered by Grigg

(2005) as the third entry that makes the system much secure and transparent due to the fact that blockchain registries are immutable.

In order to provide a better understanding of the functioning of the proposed triple-entry system by Grigg (2005), Cai (2021) presented the following illustration based on the blockchain of bitcoin protocol:

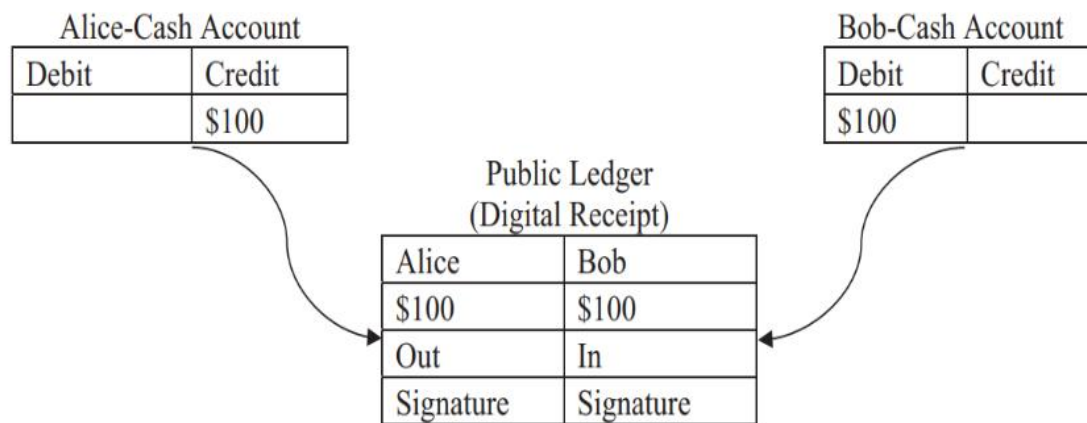


Figure 2. Operation of the triple entry system, taken from Cai (2021).

The proposal presented by Grigg (2005) for an accounting system based on a triple entry configuration, and as can be seen in the illustration presented by (Cai 2021) assumes that:

1. User A (Alice) intends to transfer ownership of an asset, in the case of the illustration shown the asset is money, to User B (Bob).
2. To transfer the money to Bob, Alice signs with her private key the intention to send Bob \$100.
3. Bob receives an alert and verifies that Alice intends to send him \$100. If Bob intends to accept this money from Alice, he must sign the transaction with his private key.
4. Then, through cryptographic resources, the intentions of both users will be validated, the transaction will be executed and recorded in an immutable ledger.

Cai (2021) makes an important observation between the publication of the paper by Grigg (2005) and the present moment:

“Grigg (2005) proposed a great conceptual advance to the business recording system. At the time of conception, it was unclear who would act as the trusted and neutral third party to control the third shared ledger. The emergence of Bitcoin and its underlying blockchain protocol emerged three years later, demonstrating that a trusted and neutral third party is not necessarily required, as the third public ledger in Grigg (2005) can be decentralised, immutable, secure and automated using blockchain” (Cai, 2021, p.77).

According to Cai (2021), Dai & Vasarhelyi (2017) and Tyra (2014) blockchain has the capability to play the role of a trusted third party in a triple entry accounting environment, however, it is important that the academic and professional accounting community become predisposed to studying the technology and the impacts that it can cause.

Blockchain as a mechanism for self-transparency

Globally, records are a means of collecting information and evidence of events and decision-making and, insofar as they provide for the existence of an auditable trail of recorded events, records represent a mechanism of transparency.

In accounting, the registration based on the double-entry system presents some gaps in terms of security and transparency (Carlin, 2019).

According to Cai (2021) and Grigg (2005) in the double-entry system, each entity that operates in the business sphere has its own accounting ledger, given that the transactions which record debit in the accounting ledger of an entity must correspond to the credit records made in the accounting ledgers of other entities.

The double-entry system, therefore, presents some weaknesses in terms of security and transparency of registry. However, blockchain technology presents itself as a self-transparency mechanism that can enhance the resolution of many of these problems (ACCA 2020; Karajovic, *et al.*, 2019; ICAEW, 2017).

According to ICAEW (2017), the hypothesis that accounting now has a reason for why the registered transactions are validated by thousands of users in real-time and because they cannot be eliminated or modified it is clearly a sign of hope for greater transparency of the accounting systems registration. The distributed ledger clearly has benefits due to the reduction of human error in the registration of transactions as well as decreasing the possibility of fraudulent operations from occurring. The way of validating transactions through distributed consensus removes the likelihood that a malicious user will be able to delete or modify the transaction records.

According to Dai & Vasarhelyi (2017), blockchain has the potential to allow for a transparent and verifiable real-time accounting ecosystem. Regarding the meaning of blockchain for accounting and auditing the authors mention that:

“Accounting and assurance could be among the professions to which blockchain would bring great benefits and fundamentally change the current paradigms. Blockchain’s functions of protecting data integrity, instant sharing of necessary information, as well as programmable and automatic controls of processes, could facilitate the development of a new accounting ecosystem. This technology could also serve as a foundation to

enable automatic assurance and help the current auditing paradigm become more agile and precise.” (Dai and Vasarhelyi, 2017, p.5/6).

Dai & Vasarhelyi (2017) further state that blockchain serves the purpose of the third part functions in the triple entry system proposed by Grigg (2005), since:

“It could play the role of the intermediary by distributing and automating the storage and verification process, providing a secure foundation that prevents tampering and irregular accounting entries. Because of the nature of blockchain, once an accounting entry is confirmed and added to the chain, it can hardly be altered or destroyed. Moreover, smart contract technology could enable rapid verification of transaction records following accounting standards or pre-specified business rules.” (Dai and Vasarhelyi, 2017, p.10).

Taking into account the gaps that the double-entry system presents, and comparing with the possibility of the existence of an accounting ecosystem based on triple-entry and using blockchain technology as a reliable third party, we can see some advantages as is shown in the next comparative table:

In this way, in accounting, business management and administration of public entities, being aware of how blockchain works, in terms of all its configurations, and of the most diverse adaptations to which it has already been studied and applied, it could be seriously inappropriate not to consider blockchain technology as a possible future mechanism for transparency, not only in carrying out accounting registries but also in the monitoring and control of organizational processes.

As mentioned by Bible *et al.*, (2017) there is the possibility to build private blockchains with unique configurations for each user and, according to ACCA (2020), Karajovic, *et al.*, (2019) and ICAEW (2017), blockchain provides clear and absolute certainty of the origin of transactions, goods or contracts, as well as information about the users in the transactions.

According to Shin and Hwang (2020), blockchain technology is the future of technology especially in the fields requiring making connections and networks environment trustable and transparent.

Thus, there is evidence to support the idea that blockchain can be used besides the accounting record. Public organizations could have a blockchain as a mechanism for transparency in the delegation and execution of tasks and, simultaneously, as a tool that can enhance the exercise of public functions free of pressure and with awareness of the naturally abstract concept of accountability supported by Schweiker (1993) and Sinclair (1995). Not less relevant, as will be exemplified in the next section of this article, is the verification that blockchain factually means the great possibility of offering a resolution to the problems mentioned by Bovens (2005) “Accountability as a blame scheme” and “Who is the accountable?”

Weaknesses of double-entry system in terms of security and transparency	
1	An entity may, on its own initiative, carry out errors or fraudulent registries in its accounting ledger that do not coincide with the counterparty's records.
2	An entity may, at its sole initiative, at any time, delete or edit the records made previously.
3	Records that contain errors or that are fraudulent are only detected when comparing the accounting ledgers of both entities that are involved in the transaction regarding that incorrect or fraudulent record.
4	Registration based on the double-entry system, even if it allows for the existence of an audit trail, does not allow the records to be verifiable and self-auditing in real time.
5	In the double-entry system, since each entity produces its accounting ledger and the production of these records is not automatically compared, it is possible for the accountants to easily manipulate the financial statements. While the accounting registry is easily manipulated, there will be problems associated with the non-veracity of the financial statements, which also represents the existence of problems associated with the efficiency of the audit, since the financial elements are not auditable.
Advantages of a triple-entry system using blockchain in terms of security and transparency	
1	There is only one accounting ledger. Thus, an entity cannot, on its own initiative, make accounting records with errors or fraudulent records that do not coincide with the counterparty's records. As shown in the previous illustration by Cai (2021) in a triple-entry system, initially the sender (Alice) and the recipient (Bob) must sign the transaction, admitting their willingness to perform it. If Bob does not accept Alice's money, when the transaction is validated via the consensus mechanism using a blockchain, the transaction will be rejected because Bob did not accept it and thus will not be added to the distributed accounting ledger.
2	As mentioned by Cai (2021), ACCA (2020), Liu, Wu & Xu (2019), Chen et al., (2018), and Nakamoto (2008), when using blockchain as a trusted third party in the validation of any type of transactions no one can delete or edit the records that were previously validated and added to the distributed ledger.
3	Using a triple-entry system, where the blockchain is responsible for acting as a trusted third party, the records are only added to the distributed ledger after verification via a consensus mechanism. The verification of records carried out through the consensus mechanism using blockchain technology confirms in real-time the respective credit and debit movements of those involved in the transaction, as the example of Alice and Bob demonstrates in the paper by Cai (2021). In this way, records that contain errors or that are fraudulent will be detected before they are added to the accounting ledger.
4	A triple-entry system, where the blockchain acts as a trusted third party, allows the records to be verifiable and subject to real-time self-audit. Thus, the blockchain acts as a self-transparency mechanism and thus limits the possibility for chartered accountants manipulating financial statements. This does not only mean a major step in eliminating the desire that the entity's financial statements correspond to their economic and social reality, but it also represents an advance for the audit since it makes the financial statements auditable.

Table 2. Comparative analysis of using the double-entry system or triple-entry system. Built by the author.

THEORETICAL EXAMPLE AND DISCUSSION

Presentation of the theoretical example

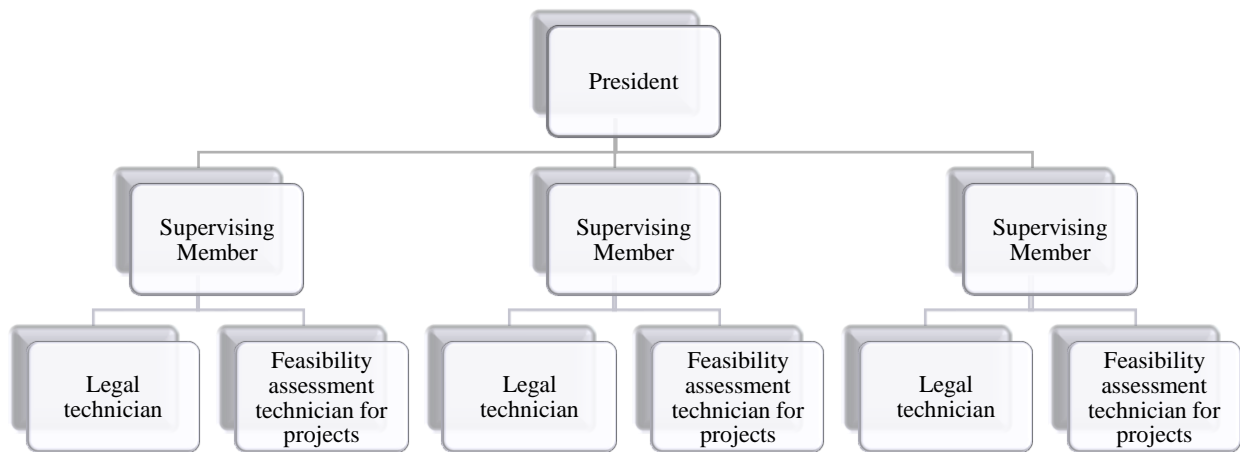


Figure 3. Fictitious Hierarchical Structure of Agency X. Built by the author.

For a more expressive understanding of what blockchain can mean as a mechanism of self-transparency for public institutions, let us imagine a public body, hereinafter referred to as “Agency X”, whose function is to allocate community funds within the scope of investment projects and look closely at its fictitious hierarchical structure.

The flow of procedures carried out by “Agency X” is carried out according to the hierarchy previously presented. In this way, the president is responsible for receiving applications, delegating tasks to legal technicians and technicians to assess the viability of investment projects and is also responsible for the final decision to approve or disapprove investment projects.

Finally, based on the performance of the requested procedures, according to all opinions and their assessment, the president decides on the legibility or non-legibility of the financing of investment projects.

Building a blockchain for Agency X

According to the blockchain network configuration criteria and the user permissions previously mentioned and presented in Bible *et al.*, (2017), the following is a proposal for how to build a blockchain for “Agency X”.

- Blockchain network structure:

As “Agency X” is a public entity that is intended to allocate community funds, it is proposed that its blockchain operates based on a private network that could only be accessed by users who have an invitation and permission.

Furthermore, it is proposed that all individuals that make up the hierarchical structure of “Agency X”, the regulatory organizations and controllers of community funds, hereinafter referred to as “XYZ Entities” and also, all companies involved in the tender procedures for community funds must remain on the network.

Once the tender procedure is over, regardless of whether the investment project is approved or disapproved, companies are excluded from the network.

- Network permission structure:

In terms of permissions, the “Agency X” blockchain would be divided into three parts, the permissions related to the network settings, the permissions regarding the creation of records and the permissions regarding the validation of the created records.

In relation to the first part, only the Chairman of “Agency X” would be authorized to create records of changes in the network settings.

With regard to the permissions for the creation and validation of records related to the procedures it can be done mandatorily according to the next table:

Flow of procedures carried out by blockchain “Agency X”			
Registry	Registry Creator	Registry Validation	Recipient and Authorization to Consult Information
Add company to “Agency X” blockchain	President of “Agency X”	All users	All users
Application and investment project submission	Candidate company	All users	President of “Agency X” and XYZ entities
Delegation of functions: to supervise the conclusions obtained by the legal technicians and by the technicians of project feasibility assessment.	President of “Agency X”	All users	Supervising member and XYZ entities
Delegation of functions: check if the project meets the legal requirements.	President of “Agency X”	All users	Legal technician and XYZ entities
Delegation of functions: carry out an economic-financial analysis.	President of “Agency X”	All users	Feasibility assessment technician for projects and XYZ entities
Report the opinion of the legal evaluations	Legal	All users	President of “Agency X”,

carried out.	technician		Supervising member and XYZ entities
Report the opinion of the economic and financial analysis carried out.	Feasibility assessment Technician for projects	All users	President of "Agency X", Supervising member and XYZ entities
Report the opinion of the supervision carried out.	Supervising member	All users	President of "Agency X" and XYZ entities
Report the decision of approval or disapproval of the investment project and the facts that support the decision.	President of "Agency X"	All users	President of "Agency X" and XYZ entities
Communication of consent of the decision to approve or disapprove the investment project, or request an inspection of the XYZ Entities.	Candidate company	All users	President of "Agency X" and XYZ entities
After the procedure and all decisions are completed, remove the blockchain candidate company from Organ X.	President of "Agency X"	All users	All users

Table 3. Flow of records and procedures for an application for a community fund using a blockchain. Built by the author.

Analysis of the Agency X blockchain as a self-transparency mechanism

Blockchain can provide increased transparency for public and private organizations as well as those responsible (ACCA 2020; Karajovic, *et al.*, 2019; ICAEW, 2017).

According to Power (2000), self-transparency technologies and mechanisms play an important role in protecting accountability and transparency.

Some internal agents, that is, individuals who have a direct influence on the construction of information can be malicious. In this way, these agents represent a real threat with regard to the subject of manipulation and distortion of information, however, blockchain as a mechanism of self-transparency limits the power of influence and the field of action of these agents and, in addition to limiting the field of action of these malicious internal agents, blockchain represents an important auxiliary in the role of protecting individuals who fully and responsibly fulfill their professional functions and who, in their profession, as well as in their life, are governed by moral principles and abstract accountability but which are constantly under pressure from external agents.

In the end, if there is no scope for distorting information, even if there are malicious internal and external agents, their practices will always be highly difficult to execute. According to Chen *et al.*, (2018)

and Nakamoto (2008) even if a direct agent is able to change the information in a block, it is unlikely to do so without being recognized.

Let us now consider the following analysis regarding the configuration of the Agency X blockchain permissions:

- Add and remove users from the network:

Only the President of Agency X can, according to previous analysis of the credibility of the candidate companies, add companies to the network and, likewise, only the President of Agency X after the procedures are finalized can remove the companies from the Agency X blockchain.

According to Bible *et al.*, (2017), this configuration allows the permanence of users on the blockchain to be restricted and selective, thus limiting the possibility of malicious agents on the network and thus reducing the risk of fraudulent operations.

- Validation of records:

Also, the validation of records through the consensus mechanism is a strong ally of the transparency of the blockchain system. As supported by ACCA (2020), Chen *et al.*, (2018), ICAEW (2017) and Nakamoto (2008), blockchain has the ability to offer a system where registered information cannot be changed or deleted. In addition to this relevant immutability characteristic, the blockchain still makes clear the identification of the sender and recipient of the information, and it has the advantage of forcing all users of the blockchain, by means of the validation of the registration carried out using the consensus mechanism, to be witnesses of the intention of a particular user to perform a certain registration, even if the information transacted is not available for their consultation. In a good summary, if a blockchain user performs a registration that constitutes an error or criminal action, all users will be witnesses that that user made that registration.

Blockchain, account giving, and personal accountability

Bovens (2005) identified the problems “Who is the Accountable?” and “Accountability as a blame scheme”. These problems state that the accountability and accountability forums, for example, parliamentary committees and courts, are often faced with the difficulty of identifying who is responsible for the failures, errors, or crimes that have occurred and also there is a tendency for superiors to try to excuse themselves by pushing errors or crimes that have occurred to employees belonging to lower levels of the hierarchy.

Blockchain makes it possible to identify the accountable in a simple way and in this way, approaches the possibility of solving the complex issues identified by Bovens (2005) “Who is the Accountable?” and “Accountability as a blame scheme”.

It can be verified in the following example related to Agency X blockchain:

Agency X President received an application whose objective is the restructuring of a hotel. In the delegation of tasks and based on the manual of procedures to be carried out, it requests, among many others, that the legal technician check the noise licenses. In the verification procedures, the legal technician finds that the applicant company does not hold any noise license and, supported by the non-compliance with this legal requirement, decides to issue a report with a disapproval of the investment project. In turn, the Supervising Member, as a customer of that hotel and with some affective connections to the hotel's administrators, knows that the hotel is located in an isolated area and therefore will hardly be subject to noise complaints, decides to ignore this fact and issues a report with that grants approval. The President, armed with all the information previously mentioned, decides to approve the granting of the community fund for the restructuring of the hotel.

In the random inspection operations of the tender procedures, an XYZ Entity responsible for the inspection of this procedure, realizing this non-compliance will determine responsibilities and, due to the immutable records of the Agency X blockchain, it will be able to identify that the supervising member ignored the reasoned opinion of the technician and that the President of Agency X, with all the information, also chose to ignore this opinion.

Not ignoring the mentioned before, blockchain in no way contributes but also does not affect, the abstract accountability of accountants as human individuals. This dimension is underlying the moral and ethical principles referred to by Schweiker (1993) and accountability where there are limits, according to Messner (2009), favor it. In this way, an individual who does not act according to the principles of abstract accountability will not start doing so due to the use of blockchain in his organization.

FIELD OF CONTRIBUTION

The study intends to be a framework to explore blockchain, an emergent technology that has the potential to impose changes on the business ecosystem. In this study, blockchain is explored in a way to improve the transparency and accountability of public entities and private businesses companies. Also, there is an attempt to explore what are the effects of blockchain technology on the individuals who are responsible for being accountable in the name of their entities.

In a generic way, it also gives some perspectives of changes that blockchain can achieve in regard to the future of accounting, auditing, and business models.

CONCLUSIONS

There is clear evidence that blockchain has the potential to enforce the improvement of public and private institutions in the chapter of transparency. In addition, the widespread adoption of blockchain

in accounting may, due to the immutability of records, potentialize a tool that protects the accountable from being the target of external pressures.

However, with regard to accountability, the blockchain may represent an evolution, on the one hand, as it enables the accountability forums to answer the questions of Bovens (2005) “Who is the accountable?” and “Accountability as a blaming scheme” and, on the other hand, a threat, since in an analogy to the past, blockchain technology can be used to enforce the accountability of individuals, based on the concept of artificial accountability and thus enhance the growth of this empty concept.

Regarding the individual accountability of the account providers, blockchain does not provide any improvement or any setback. Abstract accountability results from important human aspects that go beyond professionalism such as the moral and individual ethics of the individuals who are accountable and, therefore, the use of technologies are not likely to cause any change to them.

The observation of recent events, such as administrative reforms and the ideology of self-realization, suggests that the desire to recover the genesis of the concept of accountability will be a long and arduous process, which can only be possible if the culture of accountability is reconsidered and it is possible to observe past studies and exclude the charade created by the accountability measurable through the results and institutional objectives and cumulatively if the accountants are made aware of the concept of abstract accountability.

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THE IMPACT OF INTERNAL VS. EXTERNAL CSR ACTIONS ON FIRM'S FINANCIAL PERFORMANCE IN THE LUXURY SECTOR

Gordano, Silvia; Chiaudano, Valentina

Department of Management, School of Management and Economics, Turin, Italy

ABSTRACT

In modern times, sustainability has become an imperative issue for the luxury industry. By challenging the traditional incompatibility associated to 'luxury' and 'sustainability' concepts, recent research has provided burgeoning evidence of the great potential of alignment between these two realms. However, what the financial impact of the firm's CSR engagement within this peculiar industry is, remains an open question. The present study aims to fill this gap by leveraging on the distinction between internal and external CSR actions, drawn upon stakeholder theory, to test their effects on firm's financial performance (FP). Such categorization is consistent with the debate about the different impact elicited by different types of CSR activities on luxury consumers' perceptions (Amatulli *et al.*, 2018; Sipilä *et al.*, 2021). Results from the regression analysis conducted show that, while employee-related CSR actions provide financial benefits in terms of operational efficiency, sales profitability and capital markets' evaluations, those oriented toward the community (i.e., donations and charitable initiatives) are negatively associated with FP. We propose that, due to the past endurance shown by luxury firms to engage in CSR practices and the mere symbolic value that can derive from and be associated with philanthropic actions, pursuing organizational legitimacy through company-external good causes may not be suited to enhance financial performance. The study contributes to the broad CSR literature by providing empirical evidence from a still under-explored business and enriches the ongoing debate on luxury brand management and responsible practice at a strategic level.

Keywords: corporate social responsibility (CSR), sustainability, internal and external actions, luxury, financial performance

INTRODUCTION

The present study aims to investigate the financial impact of corporate socially responsible practices in the luxury industry, by analysing the distinct effects of internal and external CSR actions on firms' financial performance (FP). In current times, sustainability has become a matter that luxury firms can no longer ignore (Winston, 2016). Millennials and Generation Z, who represent the current market definers, look for sustainability sensitive brands (Deloitte, 2020). Being aware of the need to implement

sustainable practices to maintain competitive advantage, in recent years luxury brands have increasingly turned their attention to corporate social responsibility (CSR) actions. The past endurance shown by luxury companies to engage in CSR practices is consistent with the debate about whether CSR commitment could be beneficial for such brands. In this regard, prior research has highlighted that the conflicting consumption values underlying CSR and luxury (i.e., self-enhancement vs. self-transcendence) may lead to brand dilution (Torelli, Monga and Kaikati, 2012), thus suggesting that consumers' perceptions and beliefs have to be carefully managed when engaging in CSR activities (Davies, Lee and Ahonkhai, 2012; Kapferer and Michaut-Denizeau, 2014; Janssen, Vanhamme and Leblanc, 2017; Costa Pinto *et al.*, 2019). Nonetheless, burgeoning evidence of the great potential of alignment between the universe of luxury products and sustainable development has emerged as well (Janssen *et al.*, 2014; Sipilä *et al.*, 2021). In this vein, CSR actions able to mitigate the threats deriving from CSR engagement and to provide benefits for luxury companies have been suggested. For instance, Amatulli *et al.* (2018) have supported that the firm's focus on actions turned toward CSR's legal and philanthropic dimensions can increase consumers' willingness to buy due to their signalling-orientation in line with the luxury concept. An opposing view is proposed, instead, by Sipilä *et al.* (2021), who suggest that, compared to company-external CSR, luxury companies' internal CSR engagement (i.e., activities related to the company's business processes, such as policies oriented to the well-being of employees) lowers consumers' extrinsic CSR attributions and subsequently increases loyalty intentions.

By answering to the call for further investigation on the financial impact of CSR within the luxury context (Kunz, May and Schmidt, 2020), we leverage on the distinction between internal and external CSR dimensions drawn upon stakeholder theory and consistent with the abovementioned prior research, to address the following question: *what is the impact of internal and external CSR actions on luxury firms' financial performance?*

The analysis is conducted on a sample of 42 luxury companies based on data from Thomson Reuters ASSET4.

Our findings contribute to the debate on CSR engagement in the luxury industry by providing empirical evidence of the distinct financial effect of CSR actions directed toward different categories of stakeholders. Furthermore, we expand existing literature in the CSR field which has traditionally focused on more environmentally sensitive industries (e.g., mining, oil & gas, food & beverage), while largely neglecting the luxury segment. Only more recently, research has started investigating possible relations between luxury and CSR activities (Kunz, May and Schmidt, 2020). However, paradoxically, by leveraging on their leading position, luxury brands have the power to act as industry models and influence societal trends on a broad scale, thus playing a crucial role in promoting production and

consumption patterns sustainability-oriented (Joy *et al.*, 2012). Additionally, recent literature has highlighted the need to study different industries and sectors separately, in that each industry faces unique challenges about its own internal and external environment (Endrikat, Guenther and Hoppe, 2014). Yet, while previous empirical research has mainly considered CSR activities in an aggregated measure, some authors have argued that the different dimensions of CSR affect the firm in different ways (Inoue and Lee, 2011). In this vein, the theoretically driven distinction between internal and external CSR actions has been suggested as a promising approach of analysis (Hawn and Ioannou, 2016).

Results are valuable from a managerial perspective in that they provide managers with empirical evidence on the potentially harmful impact on firm's FP of CSR actions perceived by the audience as a mere marketing-tool.

PRIOR RESEARCH AND HYPOTHESIS DEVELOPMENT

Corporate social responsibility and luxury brands

Both the concepts of CSR and luxury lack a precise and unique definition. CSR has been defined as the company's commitment to profitability while acting as a good citizen (Freeman and Velamuri, 2006), thus "actions that appear to further some social good, beyond the firm's interests and that which is required by law" (McWilliams and Siegel, 2001, p. 117). One of the most prominent conceptualizations of CSR comes from the work by Carroll (1979), according to whom "social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time" (Carroll, 1979, p. 500). Along the literature, two main conceptual characterisations of CSR have been framed over time, namely the residual and the integrated CSR approaches (Freeman *et al.*, 2010). Whereas a residual CSR logic views strategic stakeholder management as an instrumental concern for stakeholders in order to improve financial performance, the integrated CSR approach is profoundly rooted in stakeholder theory since CSR is conceptualized as the "integration of social, ethical, and environmental concerns into the management criteria for corporate strategy" (Freeman *et al.*, 2010, p. 259). This means that CSR is pursued together with core business goals and is embedded into the corporate decision-making processes in order to advance stakeholder interests that can benefit both strategy and financial performance (Fiandrino, Busso and Vrontis, 2019). Many criticisms around traditional (i.e., residual) CSR conceptualisations have pushed toward more integrated CSR practices able to strive for innovation in a transformative and flexible manner, rather than seeking competitive advantage in a static way (Mosca and Civera, 2017).

Luxury, on the other side, has been highlighted as a relative concept, as what constitutes 'luxury' differs according to the consumers' perceptions (Hauck and Stanforth, 2007). Nevertheless, there is consensus

amongst scholars that luxury products evokes eliticism, hedonism, ostentation, self-pleasure and non-necessity (e.g., De Barnier, Rodina and Valette-Florence, 2006; De Barnier, Falcy and Valette-Florence, 2012). The social underpinning of luxury and sustainable engagement are, therefore, traditionally anchored to opposite perspectives: whereas luxury is discriminatory and leads to a vertical stratification of society, sustainability is associated with the development of a sense of commonality and collectivism in front of environmental threats that concern everyone and with the notion of social equity and inclusion. This makes luxury brands engagement in CSR actions a difficult venture and a potential pitfall (Torelli, Monga and Kaikati, 2012; Janssen *et al.*, 2014; Kapferer and Michaut-Denizeau, 2014; Amatulli *et al.*, 2018).

Research on sustainable luxury has developed across three main research streams (see Kunz, May and Schmidt, 2020 for a systematic literature review). While several academics have focused on sustainable luxury products and brands issues related to their harm, supply chain, and communication, another part of the literature has dealt with stakeholders, by specifically investigating the effect of consumer characteristics on the purchase of sustainable luxury and the consumers' perceived compatibility of luxury and sustainability. Finally, a range of studies have focused on the strategic level of CSR, thus analyzing the effect of CSR activities on consumer behavior, as well as discussing successful strategic approaches to incorporate sustainability into the firm's business practices. Along this latter line of research, existing studies argue for a positive impact of CSR on financial performance (Thomas and James, 2012; Sharma and Mishra, 2018). However, they only cover the hospitality industry. Further investigation is needed to determine "if, within this industry, with its particularities, a clear positive or even negative effect can be observed" (Kunz, May and Schmidt, 2020, p. 565). In filling this gap, the present study distinguishes between internal and external CSR actions, as illustrated in the following paragraph.

Internal and external CSR actions

Given the natural fit between the idea of CSR and the concept of 'stakeholders' (Carroll, 1991), drawing upon the stakeholder theory (e.g., Freeman, 2010), some prior studies have embraced a distinction between 'internal' and 'external' CSR dimensions (e.g., Tang, Hull and Rothenberg, 2012; Schons and Steinmeier, 2016). In this regard, internal CSR is referred to as actions directed to stakeholders that lie within the firms' boundaries (i.e., employees, managers, owners), whereas external CSR as actions addressed to stakeholders that generally lie outside the organization (i.e., society, government, customers, suppliers, creditors, and shareholders). This distinction is theoretically consistent with the neo-institutional theory (Hawn and Ioannou, 2016), according to which firms can undertake two types of actions to gain legitimacy (e.g., King, Lenox and Terlaak, 2005): internally focused, in order to signal

conformity with legitimized structures, and externally focused, aimed at defending public image in the eyes of external constituents through prosocial claims (e.g., McDonnel and King, 2013).

Most of studies investigating the relationship CSR-FP have analysed CSR actions based on a comprehensive measure (e.g., Salehi, DashtBayaz, and Khorashadizadeh, 2018; Buallay et al., 2020), or by distinguishing between the three ESG pillars (i.e., environmental, social, and governance factors) (e.g., Fatemi, Glaum and Kaiser, 2018). However, some authors support that the adoption of an approach based on the distinction between internal and external CSR actions is a valuable means to deconstruct CSR practices in order to separate two different components of the resource accumulation process leading the firm to generate value (Hawn and Ioannou, 2016).

More specifically, to formulate our hypothesis, we focused on workforce-oriented actions (Turker, 2009), thus actions addressed to internal stakeholders (including training and development, health and safety, workplace diversity, equal opportunities, work life balance), for the internal CSR dimension; and community-oriented actions, such as donations and charitable initiatives, thus actions intended to influence external stakeholders and achieve public endorsement, as what concerns the external one. This is consistent with the extension of Carroll's (1979) CSR framework provided by Amatulli *et al.* (2018), who categorise CSR initiatives pertaining to the economic and ethical dimensions as internal and those falling into the legal and philanthropic dimensions as external.

Internal/external CSR actions and firm's FP in the luxury sector

Even though the social benefits associated with internal CSR actions are generally less visible to the public, such practices are indicative of a firm's true commitment to social issues (Tang, Hull and Rothenberg, 2012) and suggested to be highly beneficial for firms (Chatzoglou et al., 2017). More specifically, employee-focused policies positively contribute to organizational commitment (Brammer, Millington and Rayton, 2007), which is strongly related with levels of productivity, decrease in the absenteeism, and firm's ability to attract and retain qualified staff (Meyer *et al.*, 2002), thus leading to enhanced organizational performance (Ali *et al.*, 2010). Smith (2005) argues that CSR activities in the form of equal employment opportunity policies and practices enhance long-term shareholder value thanks to the reduction of costs and risks arising from the reduction of employee turnover that results from morale improvement. Additionally, the firm's practices on such internal issues are considered by the public as a major indicator of whether the company is hypocritical in engaging CSR (Janney and Gove, 2011). In the luxury context, Sipilä et al. (2021) argue that employee-focused actions, being perceived as a core responsibility for companies in general (Schons, Scheidler and Bartels, 2017), are able to lower consumers' perception of firm's CSR activities being extrinsically motivated (e.g., to increase profits), and increase consumers' loyalty intentions. Based on these considerations, we propose the following hypothesis:

Hp1: *Luxury companies' engagement in employee-related CSR actions is positively associated with firm's FP.*

External CSR actions are more visible to the public and, thus, supposed to have a more direct impact on firms' reputation (Basu and Palazzo, 2008). They play a critical role in achieving legitimacy and public endorsement as they convey and communicate to external audiences the firm's CSR commitment. Particularly, corporate philanthropy engagement can function as a means to strategically raise brand image (Brammer and Millington, 2005), promote products, mitigate the risks of reputational losses, help the firm to secure the acquisition of critical resources controlled by stakeholders and reduce the risk of losing resources it already controls (Wang, Choi and Li, 2008), thus positively affecting firm's financial performance (Wang and Qian, 2011). Some studies, however, have found little influence on FP (Berman, 1999) or a curvilinear relationship (Wang, Choi and Li, 2008). In the luxury sector, Amatulli *et al.* (2018) have supported, through field experiments, that the high public visibility of such CSR initiatives, being strongly consistent with luxury products' status-signaling orientation, increase consumers' willingness to purchase products. Thus, we formulate the following hypothesis:

Hp2: *Luxury companies' engagement in community-related CSR actions (i.e., donations and charitable initiatives) is positively associated with firm's FP.*

METHODOLOGY

Sample and data collection

To select firms pertaining to the luxury sector, we initially relied on the top 100 luxury companies in terms of revenues listed by Deloitte's report on Global Power of Luxury Goods 2020. However, due to the lack of available CSR data on Thomson Reuters's database for 65 companies on the list, we integrated the dataset with other well-known luxury brands not included in Deloitte's report due to either their product category (e.g., automobiles, travel and leisure services, boating and yachts) or their lower revenue. After removing companies with missing data, the final sample consisted of 42 luxury firms. Data on companies' ESG commitment were extracted from Thomson Reuters (ASSET4), which provides scores related to a firm's ESG performance based on corporate reported data. This dataset has already been validated by prior research (Cheng, Ioannou and Serafeim, 2014; Hawn and Ioannou, 2016; Fiandrino, Devalle and Cantino, 2019; Nirino, Miglietta and Salvi, 2019).

For measuring employee-related CSR actions, we used the *workforce score* (WORKscore) provided by the database within the social pillar score, which measures a company's effectiveness towards job satisfaction, healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce. To measure external-focused CSR actions, we employed another social score, namely the *community involvement score* (COMscore), which assesses the company's commitment to improve its good corporate citizenship, such as involvement in the

community through donations, volunteering, philanthropic activities, and community investments. Scores were collected for the fiscal year 2018 in order to allow a one-year gap for the assessment of the impact on FP, so that the latter refers to fiscal year 2019, which is not affected by the global financial effects of Covid-19 pandemic. Companies' market and accounting data were collected from DataStream. FP have been analysed by considering alternatively two accounting-based measures, namely ROA and ROS, and one market-based measure, i.e., Tobin's Q, calculated as the ratio of the sum of market capitalization and total assets minus the book value of shareholders' equity over total assets. In line with prior research, we considered into the analysis the following control variables: size, as measured by logged assets and annual sales revenues, total debt to total assets ratio (leverage), as a proxy for financial risk (McWilliams and Siegel, 2001), and beta, as a measure for stock's systematic risk.

Data analysis

To test the impact of internal and external CSR actions on firm's FP, the following ordinary least squares (OLS) regression models were carried out:

$$\text{ROA} = \beta_0 + \beta_1 \text{WORKscore} + \beta_2 \text{COMscore} + \beta_3 \ln_assets + \beta_4 \ln_revenues + \beta_5 \text{LEV} + \beta_6 \text{BETA} + \varepsilon$$

$$\text{ROS} = \beta_0 + \beta_1 \text{WORKscore} + \beta_2 \text{COMscore} + \beta_3 \ln_assets + \beta_4 \ln_revenues + \beta_5 \text{LEV} + \beta_6 \text{BETA} + \varepsilon$$

$$\text{TOBINQ} = \beta_0 + \beta_1 \text{WORKscore} + \beta_2 \text{COMscore} + \beta_3 \ln_assets + \beta_4 \ln_revenues + \beta_5 \text{LEV} + \beta_6 \text{BETA} + \varepsilon$$

RESULTS

Descriptive analysis

Descriptive statistics of the selected variables are illustrated in Table 1. The mean of WORKscore and COMscore sets, respectively, at 61.04 and 51.36. While standard deviation (SD) for the first one is equal to 31.77, for the latter is considerably lower (16.92). Whereas for both dimensions the minimum values are around 0.00, indicating that some companies do not adopt policies concerning neither the workforce nor the philanthropic dimension, the maximum value for the WORKscore (99.70) is substantially higher than the COMscore (58.96). For what concern FP measures, the mean ROA is 7.63 per cent (SD of 7.08 per cent), mean ROS is 16.84 per cent (SD of 15.71 per cent), and the average value of Tobin's q is 2.81 (SD of 2.17). To check for multicollinearity among variables, the variance inflation factor (VIF) was used. Correlation results show VIF slightly greater than 1.00, with the exception of $\ln_revenues$ and \ln_assets (VIF, respectively, equal to 5.653 and 6.319), which lie, however, below the critical threshold (10.00) for a high multicollinearity (Kutner, Nachtsheim and Neter, 2004).

	Mean	SD	Min	Max
WORKscore	61.036	31.767	0.64	99.70
COMscore	51.357	16.915	0.00	58.96
ROA	7.631	7.075	-19.29	22.55
ROS	16.838	15.708	-1.01	97.15
TOBINQ	2.807	2.173	0.29	10.18
ln_assets	22.947	2.063	19.10	27.83
ln_revenues	22.474	2.143	18.57	27.75
leverage	27.634	21.421	0.00	107.27
beta	0.952	0.448	0.25	2.48

Table 1. *Descriptive statistics**Regression analysis*

Findings of the regression analysis are illustrated in Table 2 (*p*-values in parentheses: **p*<0.1; ***p*<0.05; ****p*<0.01). The regression provides strong results for the positive and significant impact of WORKscore on FP, for all measures of performance. More specifically, it is shown that an increase of one unit of the workforce score leads to an increase in Tobin's Q of 0.409 (*p*<0.05), in ROA of 0.534; (*p*<0.01), and in ROS of 0.272 (*p*<0.05). Consequently, Hp1 is supported.

By contrast, the COMscore is negatively associated with FP, for all FP's measures considered: Tobin's Q (*b*= -0.475; *p*<0.05), ROA (*b*= -0.426; *p*<0.05), and ROS (*b*= -0.245; *p*<0.1). Thus, Hp2 is not supported by empirical results.

For what concern variables controlled for in the study, the model shows that revenues from goods & services are positively associated with firm's market value (*b*=0.951; *p*<0.01), so that an increase of 1% of revenues results in Tobin's Q increasing of 0.00951, while a negative association with return on sales is observable (*b*= -1.632; *p*<0.01). By contrast, total assets are shown to negatively impact market performance (*b*= -0.808; *p*<0.05), but to be positively related with ROS (*b*= 1.573; *p*<0.01). The level of leverage has a significant negative effect on both ROA (*b*= -0.329; *p*<0.05) and ROS (*b*= -0.186; *p*<0.1).

	TOBINQ	ROA	ROS
WORKscore	0.409** (0.021)	0.534*** (0.002)	0.272** (0.024)
COMscore	-0.475** (0.020)	-0.426** (0.026)	-0.245* (0.074)
ln_revenues	0.951*** (0.010)	0.300 (0.369)	-1.632*** (0.000)
ln_assets	-0.808** (0.020)	-0.318 (0.315)	1.573*** (0.000)
LEV	0.048 (0.755)	-0.329** (0.028)	-0.186* (0.082)
BETA	0.181 (0.237)	0.091 (0.526)	-0.025 (0.808)
Observation	42	42	42
R2	0.320	0.398	0.684

Table 2. Regression results

DISCUSSION

Luxury companies have been facing great challenges in relation to the integration of CSR issues into their business activity. To investigate the impact of CSR actions on luxury firms' FP is critical since prior studies have emphasised the existence of potential pitfalls stemming from the engagement of luxury firms in CSR practices. To gain a deeper understanding of how CSR commitment can be associated with FP, we designed this study to discover whether internal and external CSR actions positively impact luxury firms' FP. In this respect, some previous studies have supported that the firm's focus on actions turned toward CSR's philanthropic dimensions can increase consumers' willingness to buy due to their signalling-orientation in line with the luxury concept (Amatulli *et al.*, 2018), whereas, others have suggested that luxury companies' internal CSR engagement, especially consisting of policies oriented to the well-being of employees, is able to lower consumers' extrinsic CSR attributions and subsequently increase loyalty intentions (Sipilä *et al.*, 2021).

In this paper, we found that employee-related CSR actions positively impact the firm's FP. Thus, we support that the active engagement of luxury companies in policies addressed to the well-being, equal treatment and inclusion of employees is beneficial both in terms of operational efficiency and capital markets' evaluations. The pursuit of internal CSR issues, which can be associated with normative commitment (Weaver, Trevino and Cochran, 1999) due to its lower external visibility (Tang, Hull and Rothenberg, 2012), is essential 'for the integration of responsible corporate processes into organizations' everyday activities' (Weaver, Trevino and Cochran, 1999, p. 550). Thus, findings stand in line with the expected beneficial effects deriving from the adoption of an integrated approach to CSR (Mosca and Civera, 2017), where stakeholders' interests are advanced and embedded into the underlying business structures (Fiandrino, Busso and Vrontis, 2019).

By contrast, our empirical results show a negative association between philanthropic actions and firm's FP. Prior research has argued that philanthropy initiatives can be as well strategically integrated into the companies' core business (Porter and Kramer, 2002). However, over the past years, luxury companies have been under the spotlight due to their unethical practices and, only more recently, have entered a path toward ethic luxury. Thus, we propose that highly visible initiatives and patterns of communication that involve the undertaking of ceremonies to gain legitimacy, may be interpreted by customers and investors as 'greenwashing behaviour' – which means that companies' engagement in CSR activities is aimed to promote an impression of legitimate CSR values (Mahoney *et al.*, 2013) – or as response to external pressure after the occurrence of a negative event (Frooman, 1999). Furthermore, CSR activities driven primarily by external pressures are likely to lead to less integrated CSR and be easily decoupled from the firm's day-to-day practices (Basu and Palazzo, 2008), thus not allowing to reap the benefit of an integrated approach to CSR (Freeman *et al.*, 2010). Additionally, many external stakeholders lack insight into the real actions of firms, so that they are not able to verify the symbolic or substantive nature of firm's CSR actions (Schons and Steinmeier, 2016). In this vein, philanthropy can be easily associated with symbolic actions and negatively impact firm's FP (Walker and Wan, 2012).

IMPLICATIONS

Our study provides a contribution to the CSR research in several respects. First, it expands the CSR literature which, for the most part, has focused on non-luxury contexts (Janssen *et al.*, 2014), thus exploring the impact of CSR engagement on firm's FP in a peculiar, still under-investigated and less environmentally sensitive business. Importantly, our study provides some new insights into the ongoing debate on luxury brand management and responsible practice by carrying out a quantitative analysis, still missing in prior research, to gain a better understanding of the impact of CSR engagement on firm's performance. By highlighting the different impact of two social activities (i.e., employee- and community-focused) on luxury firm's FP, we additionally enrich prior research that focused on the link between CSR practices and firm's performance by suggesting that the use of a comprehensive CSR score or the widely adopted distinction between the ESG dimensions, as the dependent variable of interest, may fail to take into consideration the outcome of different CSR actions put in place to gain organizational legitimacy and competitive advantage. In this context, the luxury business serves as an insightful setting of analysis since the beneficial effects of engaging in CSR practices by luxury firms have been subject of debate (Torelli, Monga and Kaikati, 2012; Davies, Lee and Ahonkhai, 2012; Kapferer and Michaut-Denizeau, 2014; Janssen, Vanhamme and Leblanc, 2017). However, future work could explore more in depth the issue by using a more refined measurement scale of internal and external CSR dimensions. Furthermore, given the limitations of the sample used in this study, we

suggest the expansion of the dataset to comprise both luxury and non-luxury companies in order to allow comparisons on the impact of such CSR actions among companies with different degrees of luxuriousness.

Our results yield implications for managers, enabling them to decide on a CSR strategy that significantly enhances firm's performance. Particularly, the suggested negative effects of CSR engagement through donations and charitable initiatives on FP warn managers about seeking legitimization through more symbolic actions directed toward lower-proximity stakeholders and company-external good causes, as they may represent a pitfall leading to reduced market value and profitability. In this vein, drawing upon an integrated approach to CSR, we suggest that great carefulness should be placed on the strategic posture of philanthropy, i.e., its relatedness with the company's core business. By contrast, the firm's commitment toward sustainable practices involving how they make profits, i.e., how they treat their employees, are suggested as actions rewarded with positive financial results. In this regard, we propose that, not only such actions are able to increase attributions of the company's intrinsic motives for engaging in CSR (Sipilä *et al.*, 2021), but also allow the firm to benefit from a more substantive and integrated approach to CSR.

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THE FACTORS AFFECTING PRODUCTION AND ECONOMIC EFFICIENCY OF SUCKLER COW FARMS IN THE REGION OF CENTRAL MACEDONIA, GREECE

Gourdouvelis, Dimitrios¹; Tsiouni, Maria²; Aggelopoulos, Stamatis²; Pavloudi Alexandra²

¹Animal Genetic Resources Center of Thessaloniki, Ministry of Rural Development & Food

²School of Agriculture, International Hellenic University of Thessaloniki

ABSTRACT

The aim of this study was to identify influential factors from a large number of explanatory variables that were likely to have the largest, most reliable associations with Gross margin on suckler cow farms. The region of central Macedonia was studied and the sample includes 66 suckler cow farms with 6.122 suckler cows, accounting the 51% of all suckler cow holdings in the research area. The data were collected by a questionnaire and through personal interviews with the "heads" of the suckler cow farms. Results from regression analysis demonstrated that the different studied factors had a different effect on Gross margin. The factors with strongest influence on Gross margin were Value of subsidies in €, Livestock units, Mechanical equipment score, Value of annual feed cost in € and Value of variable capital expenses in €.

Keywords: Gross margin, Suckler Cow Farming, Regression analysis

INTRODUCTION

In Greece, systematic cattle breeding was not favored, with the result that no "cattle breeding tradition" has been created. Only in the last fifty years with the application of artificial insemination and the introduction of bulls and in some cases cows of foreign improved beef cattle breeds, of high yields, did the genetic improvement of the domestic population begin, which were mainly used as working animals (Kitsopanidis 2005).

Suckler cows farming use very effectively pastures in semi-mountainous, mountainous and marginal areas, which are mainly dominated by grassy vegetation, contributing significantly to the agricultural income of the inhabitants in Greek countryside (Hatziminaoglou et al. 2001). In pasture-based beef fattening systems, fattening is slower than that applied by intensive systems based on supplementary feeding. Depending on the duration of the fattening, the slaughter weight and the carcass is also affected and thereby affecting the income of holdings as beef meat is their main output (Zjalic et al. 2006). Intensive cow-calf systems differ from most pasture-based systems in that managers exert much greater control over the production cycle and the quality of animals entering the system (Fleming et al. 2010).

The definition of efficiency is taking any given results with the smallest possible inputs, or getting the maximum possible output from given resources (Hashimzade, et al. 2017). Efficiency is the ratio of output to input used in a production process.

Similarly Hashimzade, et al. (2017) defines productivity as a measure of the output of an operation or economy per unit of input (labour, raw materials, capital etc.). The rational use of production factors can affect production output and efficiency.

Suckler cows farming profitability, defined as business efficiency to generate profit, is related to the interaction among several variables, particularly those associated to the zootechnical, managerial and economical characteristics of the sector (Bruhn et al. 2017).

The identification of technical and economic parameters related to the yearly productivity and profitability provide suckler cow farmers with information relevant to making strategic decisions, that could achieve maximum benefit with minimum cost from their operations (Marques et al. 2017).

Crucial factors for the development of beef cattle commodity are competitiveness which is determined by efficiency and the impact of the Common Agricultural Policy (CAP) suckler cow sector is affected by the CAP (Rezitis & Stavropoulos 2010). According to Stott et al., (2008) the output of suckled calves per cow, is the most important parameter for measuring production efficiency in suckler cow herds. As the farmer cannot usually influence the market price of calves sold and the prices of inputs, these variations are the greatest economic risks for the suckler cow operations (Syruczek et al. 2017).

The objectives of this paper were to assess the productivity of suckler cow herds in the Region of Central Macedonia and in extension in Greece, based on the data acquired at the farm level and also to identify the key technological and economic solutions in this type of farming.

MATERIALS AND METHODS

The region of central Macedonia that is being studied consists of seven regional units and is located in the center of Northern Greece. In the sampling area there are 129 holdings of suckler cows with a size of more than 20 cows. The final sample includes 66 suckler cow farms with 6,122 suckler cows, accounting the 51% of all suckler cow holdings in the research area. The data were collected by a questionnaire taking into account similar surveys in other countries (Solano et al. 2011, Soini et al. 2012 & Martin-Collado et al. 2014) and some related studies in Greece (Aggelopoulos et al. 2011 & 2014, Siafakas et al. 2019, Gourdouvelis et al. 2019) and through personal interviews with the "heads" of the suckler cow farms during the years 2018-2019. Tire sampling method was layered randomly (Siardos, 2005). The variety of rearing conditions in this area allows the generalization of the research results, with no significant deviation from reality.

It is worth mentioning that, in the final analysis, small, medium and large farms were included and as a result there is a great variation in the cost parameters that are taken under consideration.

The primary data were collected by a questionnaire taking into account similar surveys in other countries (Solano et al. 2011, Soini et al. 2012, Martin-Collado et al. 2014) and some related studies in Greece (Aggelopoulos et al. 2011 & 2014, Gourdouvelis et al. 2019). There were recorded the farm structure characteristics, the farmer's profile and the techno-economic indicators were used to estimate the sustainability of suckler cow holdings (Gibon et al. 1999).

Productivity analysis was performed by applying the Linear Regression Model (LRM) method. Regression expresses the dependence of the variable Y (dependent) on the independent variable X in the form of a straight line using the mathematical equation:

$$Y = a + bX$$

The participation of more than two variables in a regression or correlation analysis is known as Multiple Linear Regression Analysis (MLRA), which is an extension of the above model. When the dependent variable Y is considered to be linearly dependent, in addition, on a second variable (X_2) or on a third (X_3) or finally on a set of m variables X, the above relation is formed into:

$$\hat{Y} = a + b_1X_1 + b_2X_2 + \dots + b_mX_m + e,$$

Or more concisely in:

$$\hat{Y} = a + \sum_{i=1}^m b_i X_i$$

Where Y is the dependent variable, X_1, \dots are the independent variables, "e" is the random error term (residuals), A is the constant (constant term) and $b_1 \dots$ are the regression coefficients (regression coefficients) that explain the degree of dependence between the independent and the dependent variable. Random error (e) exists due to incomplete theory, imperfect specialization and computational errors (Petridis, 2015, Montgomery et al., 2012, Pek & Wong, 2017). The multiple regression equation is a straight line when only one independent variable participates in the model, level when two participate and super-level when three or more participate (Panaretos, 1994, Petridis, 2015).

According to Petridis (2015) the first step of multiple linear regression is the study of the dependent variable in terms of the distribution that follows and which must be normal with constant variation. The following is an examination of the relationship of each independent variable with the dependent one, which should be strong and linear. Then the relationship of the independent variables with each other is studied. These variables will give a strong model if they are not strongly related to each other. If it is, then the problem that arises is the multilinearity, which is observed when the independent variables are linearly correlated with each other.

The definition of the model reveals the relationship between the variables as well as the way they are related, and the statistical significance of the independent variables used (Bora-Senta, & Moissiadi, 2000).

To ensure the validity of the equation but also the reliability of the adaptation of a regression model, as shown by the international literature (Besley et al., 1980, Velleman & Welch, 1981, Cook & Weisburg, 1982) some diagnostic criteria are as follows:

Examination of the residues for the regularity and homogeneity of their dispersion (scattering). The dispersion is examined by graphical representations (ή highlights) of the residuals on the Y-axis and the independent variables, as well as the adjusted values on the X-axis. lack of regularity and a single graph for adjusted prices. The vertical distances of the points from the adjustment line are known as residues. The determination that the residues follow the normal distribution is made using one of the tests Kolmogorov-Smirnov, Shapriro-Wilk, D'Agostino, Anderson-Darling or graphical tests of regularity (Chalikias et al., 2015).

The independence of the residues is also checked through the scatter plot, where the non-systematic and uneven accumulation of points as well as the lack of patterns in the diagram, demonstrates (highlights) the independence of the residues. It can also be done through the Durbin-Watson index (significance check with F-test), or through the Moran's I index (Chalikias et al., 2015).

Check the autocorrelation of the residues, the detection, ie the correlation between new and previous values which leads to correlated errors.

Examination of standardized residuals. The residues, when divided by their standard deviation, are converted into standard ones.

Examination of the leverage coefficients of the values of the independent variable.

Checking the significance of the influence of *suspicious (out-of-date)* observational values which constitute a form of contravention of homoscedasticity (visually controlled by the scatter plot) as they represent high residual values (errors) that are significantly different from the straight fit of the X-Y graph this.

Cook's distance control (1977).

Checking the lack of data adjustment (Burn & Ryan, 1983).

The significance of the linearity of the multiple regression and consequently the validity of the model is checked by checking the ANOVA analysis table. This test is based on the function F (partial F-tests) and checks the correctness of the assumption that the coefficients of all independent variables participating in the model are simultaneously zero (Montgomery et al., 2012).

The coefficient of determination R^2 is used to check how well the model fits the data (Pek & Wong, 2017). The higher the value, the stronger the relationship between the dependent variable and the independent ones that make it up.

Examination of multicollinearity between independent variables. If some of them are correlated with each other, then some of the regression coefficients related to these variables may not accurately reflect the dependence of Y on the correlated ones. The intensity of the multicollinearity is detected by regressing each variable X_i that is out of equation (as Y) with all those already introduced in the model. The value $1-R_i^2$, which is calculated for each case and is called the tolerance of the multilinearity, if it is <0.10 , then there is a significant interrelationship between the regressor and some of the other integrated variables. If the tolerance is <0.05 , then the final removal of the reciprocating from the multiple regression equation is required. Empirical rule states that if the value of Pearson's coefficient r is too large ($r > 0.90$) or several r values are >0.70 in the matrix of the correlation coefficients of the independent variables, there is a serious suspicion of multicollinearity (Bora-Senta, & Moissiadis, 2000).

Examination of the VIF-Variance inflation factor is a measure of multilinearity, showing us the increase in dispersion of an estimated regression coefficient. A value of VIF <5 indicates multilinearity of the independent variables and is an indication that non-significant factors should be removed from the model (Chalikias et al., 2015; Montgomery et al., 2012).

Examination of the coefficient of variability of each independent variable. When a variable has a low coefficient of variability (the quotient of its standard deviation from the mean), then it is presented in the equation almost constant.

The Multiple Linear Regression method is widely used in problems and research in the agricultural sector (Draper & Smith, 1989, Pedhazur, 1997, Weisburg, 1985). According to the literature it has given accurate and valid results in the past and is easy to apply, especially in matters of generating production functions and studying productivity. Specific information on the methodology used for the productivity analysis using the multiple linear regression method is given in the results section.

In order to carry out this study, we use a multiple linear regression analysis, build with Python among the estimated indices (independent variables) and the dependent variable. In the statistical analyses, the independent variables are divided into zootechnical variables and economic variables. The dependent variable is gross margin.

For the initial variables of the model under configuration, logarithm was deemed necessary. The above approach aimed at normalizing the values between the various variables included in the analysis in order to achieve comparability between them. The following variables emerged from the process:

LogY = Logarithm of the variable "Gross Margin in €"

LogX1 = Logarithm of the variable "Value of subsidies in €"

LogX2 = Logarithm of the variable "Livestock units (number of suckler cows)"

LogX3 = Logarithm of the variable "Mechanical equipment score (1-5 grade)"

LogX4 = Logarithm of the variable "Value of annual feed cost in €"

LogX5 = Logarithm of the variable "Value of variable capital expenses in €"

e = error

The relationships between the dependent and the independent variables, for the two models, are described mathematically as follows:

$$E: \text{LogY} = a + b_1 \text{LogX}_1 + b_2 \text{LogX}_2 + b_3 \text{LogX}_3 + b_4 \text{LogX}_4 + b_5 \text{LogX}_5 + e$$

RESULTS

Before running regression models, multivariable adaptive regression spline models (Friedman, 1991) were conducted to explore the presence of non-linear and interaction terms within the data.

Since the data contained a large number of explanatory variables relative to the number of farms and was likely to contain multiple correlations, a conventional least squares modeling approach was deemed unsafe since it could be expected to result in substantial over fitting of the models (Hastie et al., 2015; Kuhn and Johnson, 2013).

In the final model there was included the variables that have important associations with gross margin. These variables were related to subsidies, number of big animals, level of stable installation equipment, feed cost and variable capital expenses.

The model that obtained was the following:

$$\begin{aligned} \text{Gross margin} = & \beta_0 + \beta_1 \text{Value of subsidies in €} + \beta_2 \text{Livestock units} \\ & + \beta_3 \text{Mechanical equipment score} + \beta_4 \text{Value of annual feed cost in €} \\ & + \beta_5 \text{Value of variable capital expenses in €} + u \end{aligned}$$

In order to make the variable more stabilized we log the Gross margin. Hence the log-transformed wage is used in the subsequent estimation, that is,

$$\begin{aligned} \log(\text{Gross margin}) = & \beta_0 + \beta_1 \text{Value of subsidies in €} + \beta_2 \text{Livestock units} \\ & + \beta_3 \text{Mechanical equipment score} + \beta_4 \text{Value of annual feed cost in €} \\ & + \beta_5 \text{Value of variable capital expenses in €} + u \end{aligned}$$

Every feature had very low P-value, which indicates high statistical significance. Features with P-value higher than 0.05 were excluded from the final model.

In addition, R-squared was 0.764 and Adjusted R-squared was 0.745.

Also there is no multicollinearity between the features and the Durbin–Watson test gives a value of 1.62, so there is almost no autocorrelation between the features (Figure 1.)



Figure 1: Multicollinearity among independent variables

Table 1: Model summary

	Coef.	Std. error	t	P>t	0.025	0.975
const	-7.327e+04	1.55+04	-4.720	0.000	-1.04e+05	-4.22e+04
X1	1.0469	0.457	2.292	0.025	0.133	1.960
X2	124.2029	40.205	3.089	0.003	43.780	204.626
X3	1.172e+04	5513.489	2.125	0.038	688.869	2.27e+04
X4	-1.6414	0.982	-1.671	0.100	-3.607	0.324
X5	1.9991	1.021	1.959	0.100	-0.043	4.041

Were X₁ = Value of subsidies in €

X₂ = Livestock units (number of suckler cows)

X₃ = Mechanical equipment score (1-5 grade)

X₄ = Value of annual feed cost in €

X₅ = Value of variable capital expenses in €

According to Table 1., we notice that the Value of annual feed cost in € has a negative coefficient, while all other variables have positive coefficients.

DISCUSSION AND CONCLUSIONS.

The data from the analysis show a reasonable positive correlation between gross profit margin and subsidies. Dakpo & Latruffe (2016) also claim that their results do not confirm the general finding of

the literature, namely a negative effect of public subsidies on suckler cow farms' efficiency. Revenues from the subsidies are insufficient to achieve the long-term profitability.

Kara & Kızıloğlu, (2014) found in their analysis of the factors affecting effectiveness of cattle farms that gross margin was increased parallel to the farm size, something that was also revealed in our model. Since beef cattle production has an important share in total farm income the number of cattle per farm entered *by pass* to the model. According to Bruhn et al. (2016), there are two ways to reduce the total operating costs of an operation: increasing efficiency or increasing the scale of production. To increase profitability, producers should focus on bovine meat revenue and reducing total costs. Syrucek et al. (2017) claims that total costs could be reduced with the increasing number of cows per farm, mainly due to the decreased fixed costs (wages, depreciation of fixed assets, etc.). Revenues from the sales of calves affected by 3 important parameters that generate profit for the operation: i) the selling price for calves, ii) the feeding cost and iii) the number of calves sold yearly per 100 cows. According to Stott et al. (2008) the third parameter combined with high reproductive management could improve gross margins of calving suckler herds by over 80%.

Fallon et al. (2006) pointed that zootchnical variables such as calving and weaning rate positively associated with gross output, but other as calf mortality negatively affecting gross output on suckler to finishing farms.

The most effective intervention in increasing overall productivity in livestock farming is through investing in production indicators that are relatively low (Lampert et al. 2020). In pasture-based farming systems, as in our case, the existence of stable facilities and the degree of their mechanization is an indicator of increasing efficiency and productivity, a fact that is proven in our model. The quality of farm facilities and farm buildings also had a positive relationship with farm efficiency. It is obvious that farms with concrete stables have superiority to the others regarding the effectiveness indicators although concrete stables are not fully equipped to fulfill the animal welfare issues as well (Kara & Kızıloğlu, 2014). The key component of capital costs relates to cattle housing, the kind of which and the techniques of farming cattle are determined by the purpose and intensity of raising the beef cattle (Pilvere et al. 2016).

The level of mechanization on farm significantly affects the labor factor, by reducing labor use on farm. Farm income also increased with labor efficiency, suggesting that the best mechanization score is also a good profitability guide.

The feeding cost which accounts for most of the variable costs in our model showed a significant negative correlation with gross margin. This result is explained mainly by the fact that while cows rely on seasonal grazing to meet their high nutritional requirements, the fattening requirements of calves are met mainly by purchased concentrated feed.

All the above mentioned suggests the necessity of pasture improvement studies and supportive measures for a cattle production based not on subsidies per cow but with a special emphasis on housing conditions and on self-produced feedstuffs in order to better utilize the natural resources of the Central Macedonia region.

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CITY BREAKS, TOURISM EXPERIENCE AND SUBJECTIVE WELL-BEING: INVESTIGATING THE ROLE OF IOT IN THE NEW ERA.

Hu, Mengyun; Pantano, Eleonora; Stylos, Nikolaos

School of Management, University of Bristol, Bristol, United Kingdom

ABSTRACT

The purpose of this study is to examine the effect of IoT on travel experience and subjective well-being in the context of city break. In recent years, the value of Internet of Things (IoT) has also been widely acknowledged by both scholars and practitioners in various industries. However, insights into the effect of IoT technologies on individuals' subjective well-being (SWB) remains limited. Therefore, the purpose of this study is to explore how can IoT influence individuals' SWB in the context of city breaks. In particular, this study develops an in-depth understanding of the role of IoT in the travellers' experience and its potential impact on their SWB during city breaks. The proposed model has been empirically validated using the data collected from 497 city break travellers in the United Kingdom. The results indicate that task technology fit (TTF) and perceived value of travel experience (PVTE) positivity and significantly affect tourists' SWB during city breaks. Moreover, regarding the cultural effects, the findings reveal that individualism weakens the impact of TTF on PVTE, as well as the impact of PVTE on SWB. These findings enrich our knowledge about how IoT improves consumers' SWB and provide relevant implications for business managers aiming to build an effective business strategy and deliver more valuable services to customers in the new era of IoT.

Keywords: Internet of Things; Tourism; travel experience, subjective well-being; city break

INTRODUCTION

In recent years, the explosive growth of Internet of Things (IoT) technologies offers attractive opportunities for business managers and marketers to facilitate their consumers' experience. IoT refers to a mixture of complementary smart technologies (Lin et al., 2017), which enables objects to be connected anytime, anywhere for anything and anyone, using any network or path (Lu et al., 2018). In fact, IoT has revolutionized both the way consumers interact with products or services they consumed (Novak and Hoddman 2018), and the way in which firms deliver services to consumers (Balaji and Roy, 2017). To keep and sustain a competitive advantage, understanding the triggering factors and influences of IoT usage on consumers experience is an integral aspect of the business strategy in the new era of IoT (Simões et al., 2019).

Tourism can be regarded as one of the most global and crucial industries in the world in terms of GDP and employability, which has become one of the most important players in international commerce (Benckendorff et al. 2019). It always tends to integrate new knowledge with the latest information technology applications, such as IoT and Big Data, in strategic planning processes (Stylos et al., 2021). Today, traveller behaviours have been changed due to the advancement of new technologies, which also result in new types of tourism experiences (Jeong and Shin, 2020). For instance, the growing capabilities of cloud computing and Internet of Things (IoT) have revolutionized travellers' experiences, by bringing together information search, interaction, social networking as well as remote-control functionalities to travellers (Buhalish and Amaranggana, 2015).

Although there is a growing body of research are attempting to examine the effect of innovation technologies on tourism experience (e.g., Huang et al., 2017; Jeong and Shin, 2020), so far a few studies have attempted to investigate the effect of IoT on travellers experience in a particular trip, such as city breaks. In the tourism industry, city break is a distinctive type of tourism product. Compared with other types of tourism, city breaks require a more effective plan with a shorter decision time and city breakers have to take the budgetary and time-space restrictions into considerations (Charterina and Aparicio, 2015). Thus, the current study extends the work of Zhang et al., (2018) by investigating the IoT and tourism experience in the context of city break.

Furthermore, subjective well-being (SWB) is one of the most common buzzwords in the consumer behaviour literature, which has received a great deal of attention from tourism researchers (Lyu et al., 2018; Holm et al., 2017; Su et al., 2016). As it stands, however, the tourism literature on the relationship between technology and tourists' SWB also remains largely unexplored, with most tourism studies focusing on describing the tourists' SWB impacted by travel experiences and satisfaction (e.g., Lyu et al., 2018; Saayman, et al., 2018). To fill this gap, this study aims to examine the effect of IoT on tourism experience and SWB based on the TTF theory (Goodhue and Thompson, 1995) and Hofstede's (1980) cultural dimensions of individualism. In the information system (IS) studies, some researchers indicate that cultural characteristics exist both within and across countries, such as two individuals may have different cultural characteristics although they live in the same place (Tam and Oliver, 2019; Lee et al., 2007). Thus, the moderating role of individualism in this study has been examined at an individual level.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Task technology fit

Task technology fit (TTF) refers to the extent to which technology assists an individual in performing their tasks (Goodhue and Thompson, 1995). TTF model postulates that technology acceptance

depends on how well the new technology fits the needs of a particular task (Lin and wang, 2012). In particular, this model implies that user adoption is not only influenced by the perception of the specific technology, but also by the degree of task-technology fit (Howard and Rose, 2019). In the current study, TTF is described as the intensity with IoT technologies suit or fit city break travel tasks and meets tourist requirements (Lin and wang, 2012), which is regarded as one of the essential tools to better understand the use of IoT in the context of city break.

To the best of our knowledge, limited studies have investigated the relationship between TTF and perceived value of travel experience with IoT usage in the tourism industry. However, several empirical studies in other contexts have found that TTF has a positive effect on users' perceived usefulness and perceived enjoyment (Howard and Rose, 2019). In addition, Kim et al. (2007) have defined perceived usefulness and perceived enjoyment as the benefit components of perceived value. Thus, it is possible to argue that TTF has a positive effect on users' perceived value. Regarding the context of this study, the following hypothesis can be drawn:

H1: TTF positively and significantly affects PVTE during city breaks.

Perceived value refers to the individuals' perceptions of what is received and what is given, which determine people's overall evaluation of the products or services (Kim, 2007). A significant number of previous studies in the field of consumer behaviour and marketing have suggested that perceived value directly leads to favourable outcomes, such as satisfaction and SWB (Yoo and Park 2016; El-Adly 2019). For example, Lyu et al. (2018) investigate the relationship between the value, experience and SWB in the cruise tourism setting. The results have also found that PVTE had a significant influence on the sense of SWB. As such, there is support for modelling PVTE as an antecedent to SWB. Therefore, the expectation is that:

H2: PVTE positively and significantly affects city break travellers' SWB.

Individualism as a moderator

Individualism refers to the degree to which human's behaviours are based on their personal preferences, goals, and motivations (Hofstede, 2001). Lee et al. (2007) found that mobile Internet users with individualistic tendencies are proud to be different from others and prefer services through which they can express their personalities or identities. Today, IoT technologies have been widely used in the tourism industry to provide personalized services for travellers based on their interests and preferences (Car et al., 2019). As users can customize the Internet services to their own needs and interests, individualistic users will be likely to perceive more value for IoT than collectivistic users do. In the IS studies, researchers have found that a tendency to individualism has a substantial impact on IS usage and beliefs of post-adoption. For example, Lee et al. (2007) demonstrate positive effects of individualism on post-adoption beliefs of the mobile Internet, such as, individual performance. Tam

and Oliveira (2019) further demonstrate the moderating effect of individualism on the relationship between TTF and post-adoption mobile-banking. Given these backgrounds, this study proposes the following:

H3a: Individualism moderates the effect of TTF on PVTE, such that its effect will be stronger for city break travellers with high individualism versus those with low individualism.

H4b: Individualism moderates the effect of PVTE on SWB, such that its effect will be stronger for city break travellers with high individualism versus those with low individualism.

As shown in Figure 1, this study proposes a research model linking IoT technologies to SWB. The purpose of this model is to examine the technological, emotional, personal, and contextual attributes influencing tourism experience, which in turn affect traveller' SWB. The link among task technology fit, perceived value of travel experience and subjective wellbeing are also hypothesized to be moderated by the cultural orientations of an individual.

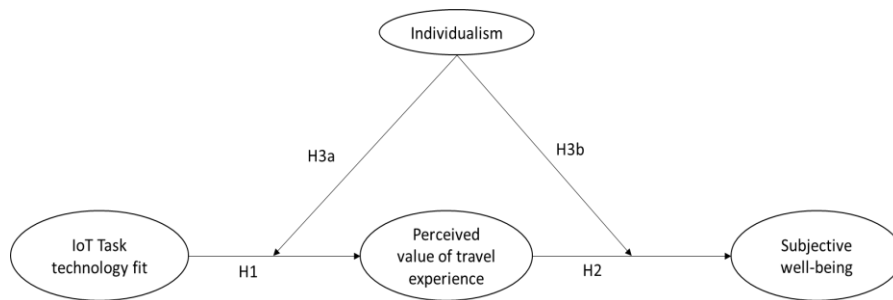


Figure1. Research model

METHODOLOGY

Data collection

City break travellers in United Kingdom formed the research sampling frame. A professional online survey marking company, *Qualtrics*, was employed to conduct an online survey in August 2020 by recruiting 497 city break travellers with some experiences on IoT travel applications in the UK.

Measurement development

All measurement items were validated based on extant research and modified slightly to fit the research context of IoT usage in city breaks. TTF is adopted from Goodhue and Thompson (1995) using a four-item scale. The measurement of PVTE was adopted from El-Haddadeh (2019) using a three-item scale. Satisfaction with Life Scale was utilised to measure SWB (Sirgy et al. 2011) using a four-item scale, with modifications to suit the context of city break and IoT usage. Individualism was measured via the three-item scale suggested by Lee et al. (2007) with some adaptations. Each item was measured in the questionnaire using a 7-point Likert scale, where participants were required to

express their feelings with proposed statements from a scale of 1–7 (anchored with 1 = strongly disagree, and 7 = strongly agree).

RESULTS

Descriptive analysis and demographic information

A total of 497 samples from the United Kingdom were used in this analysis, the participants' characteristics are summarised in Table 1. Moreover, as shown in Table 2, the average value of each measurement items is higher than the neutral point, which means that respondents are mostly agreed with the items (Atzori et al. 2010). The Cronbach's alpha values in this study are much higher than recommended accepted value of 0.7 (Hair et al., 2014), ranging from 0.908 to 0.946. It means that the internal consistency and high reliability of each construct can be confirmed (Bryman 2015). Following by Costello and Osborne (2005), we observed that normal distributions for our indicators of latent factors based on the value of skewness and Kurtosis (i.e., less than two of absolute value of univariate skewness, less than three of the absolute value of univariate kurtosis). Thus, the collected data can be used for further analysis.

		Frequency	Percentage (%)
Gender	Male	231	46.5
	Female	266	53.5
Education	Less than high school	3	.6
	High school	6	1.2
	Associate degree in college	87	17.5
	Bachelor's degree	203	40.8
	Master's degree or above	198	39.8
Age	18-25	119	23.9
	26-35	283	56.9
	36-45	57	11.5
	46-55	38	7.6
City breaks frequency per year over last five years (average)	1	25	5.0
	2-3	243	48.9
	4-5	140	28.2
	More than 5	89	17.9

Table1. Respondent Demographic Profile (N=497)

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach alpha	No of Items
TTF1	497	1	7	5.56	1.070	-1.012	1.447		
TTF2	497	1	7	5.59	1.092	-.939	1.164		
TTF3	497	1	7	5.55	1.050	-.896	1.369		
TTF4	497	1	7	5.58	1.086	-.861	1.040	0.946	4
PVTE1	497	1	7	5.53	1.051	-.842	1.158		
PVTE2	497	1	7	5.56	1.058	-.762	.975		
PVTE3	497	1	7	5.60	1.052	-.911	1.199	0.945	3
SWB1	497	1	7	5.15	.805	-.871	1.917		
SWB2	497	1	7	5.35	.971	-.740	1.580		
SWB3	497	1	7	5.37	.975	-.774	1.720		
SWB4	497	1	7	5.34	.946	-.773	1.849	0.935	4
IDV1	497	1	7	5.35	1.057	-.870	1.136		
IDV2	497	1	7	5.28	1.075	-.652	.882		
IDV3	497	1	7	5.37	1.066	-.791	1.011	0.908	3

Table2. Descriptive Statistics

Confirmatory Factor Analysis (CFA)

Following Cheung and Rensvold (2002), we have tested the measurement model through goodness-of-fit and construct validity. To test the overall measurement model fit, we have applied seven criteria suggested by Hair et al. (2014), to test the proposed model, including chi-square (χ^2) to the degree of freedom (*df*), goodness of fit index (GFI), incremental fit index (IFI), comparative fit index (CFI), adjusted goodness of fit index (AGFI), Tucker-Lewis Index (TLI), and the root mean square error fit index (RMSEA). The results of the estimation of CFA of the measurement model are reported in Table 3, which show a good fit of the measurement model. Thus, the measurement model was confirmed.

Model fit indices	Recommended criteria	Default model	References
Chi-square	N/A	152.881	
Degree of freedom	N/A	71	
X2/df	< 3	2.153	(Hair et al., 2011)
GFI	≥0.90 (the higher the better)	0.960	
AGFI	≥0.80 (the higher the better)	0.942	
IFI	≥0.90 (the higher the better)	0.989	
CFI	≥0.90 (the higher the better)	0.989	
TLI	≥0.90 (the higher the better)	0.985	
RMSEA	< 0.08	0.048	

Table3. CFA Model Estimates

Next, the construct validity was tested through convergent and discriminant validity. The average variance extracted (AVE) and Composite Reliability (CR) are performed to examine the measurement model's validity. Following Fornell and Larcker (1981), the value of AVE should be 0.5 or more and the CR should be 0.7 or more. As reported in Table 4, the measurement model demonstrated a high level of convergent validity and discriminant validity.

	CR	AVE	MSV	MaxR(H)	TTF	PVTE	SWB	IDV
TTF	0.946	0.815	0.552	0.949	0.903			
PVTE	0.946	0.853	0.681	0.946	0.743***	0.923		
SWB	0.937	0.788	0.681	0.940	0.703***	0.825***	0.888	
IDV	0.909	0.770	0.474	0.915	0.523***	0.623***	0.689***	0.877

Table 4. Convergent and Discriminant validity of constructs

Structural Equal Modelling (SEM)

After the validity of CFA, a similar number of fitness indices are considered to test the research model. The results illustrate a good fit for the structural model. Specifically, χ^2/df was found 2.302, which is less than the recommended acceptable value of 3. The results for GFI, AGFI, IFI, TLI, CFI were 0.989, 0.984, 0.991, 0.989, 0.991, respectively. The RMSEA value was 0.025 which met the recommended criteria of less than 0.08. The findings showed that our data is consistent with the theory-driven model. Thus, we could further test the path coefficients of the structural model. In addition, we analyse the path significance in order to validate the research hypotheses of this study. As shown in Figure 2, the results indicate that the SWB as the main dependent variable can be predicted by the proposed model as the Squared multiple correlations (R^2) is 0.74 (Chin 1998). Also, the results verified that perceived value of travel experience can be determined by the proposed model as the R^2 is 0.64.

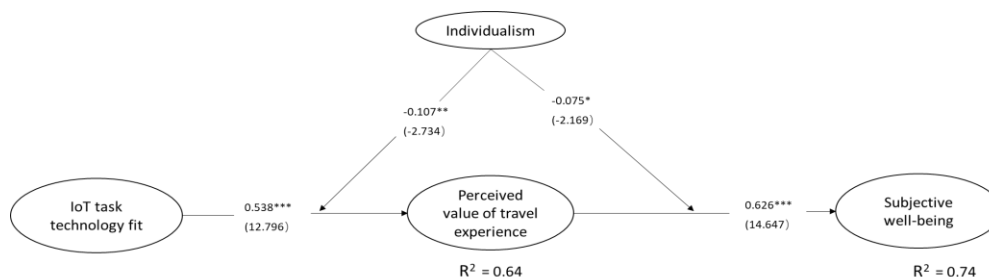


Figure2. Model with results

Notes: * p -value<0.05; ** p -value<0.01; *** p -value<0.001

Table 5 shows the standardised estimate, critical ratios (t-value) and p-value of each hypothesized path in this study. The path estimations which had a t-value greater than 1.9 and a p-value less than 0.05 was considered. As reported in Table 5, the results indicate that all of the hypotheses were supported, as the t-value is above 1.96 and the p-value is <0.001.

Hypotheses	Estimated	S.E.	C.R.	P value	Results
H1: Task technology fit \rightarrow Perceived value of travel experience	.538	.041	12.796	***	Supported
H2: Perceived value of travel experience \rightarrow Subjective well-being	.626	.036	14.647	***	Supported

Table 5. Hypotheses Testing results

Note: Regression coefficients are standardized regression coefficients. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

To assess the moderating effects of individualism, we estimated the interactive effects between each moderating variable and the hypothesized associations (Ping 1995). The result of moderating effect analysis is reported in Table 6.

Hypotheses	Estimated	S.E.	C.R.	P-value	Results
H3a: Individualism \times task technology fit \rightarrow perceived value of travel experience	-.107	.020	-2.734	.006	Partially Supported
H3b: Individualism \times perceived value of travel experience \rightarrow Subjective well-being	-0.075	.015	-2.169	.030	Partially Supported

Table 6 Moderating Effect Testing

Note: Regression coefficients are standardized regression coefficients. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

DISCUSSION

Despite TTF has been widely investigated in different contexts (e.g., Lin and wang, 2012; Howard and Rose, 2019), the relationship between smart technologies and travellers' SWB remains limited. To bridge this gap, this study investigated the major factors and the extent to which SWB is affected by IoT during city breaks. The findings of this study reveal that PVTE with IoT usage can play a key role in determining traveller's SWB which is consistent with the previous study (Prebensen et al. 2013). This study also explains that TTF has a significantly positive influence on their PVTE, which in return will ultimately influence their SWB. This implies that individuals who perceived a higher level of TTF are more likely to perceive the value of IoT when travelling, which leads to higher individuals' SWB.

Regarding the moderating effects of individualism, the findings of this study show a negative moderating effect of individualism on the relationship between TTF and PVTE, such that the effect is stronger for city break travellers with low individualism versus those with high individualism. In other words, individualism dampens the relationship between TTF and PVTE when using IoT for city breaks. Similarly, the results also indicate that individualism has a negative moderating effect on the

relationship between PVTE and SWB. This implies that the effect of PVTE on SWB is stronger with low individualism versus those with high individualism.

CONCLUSION

The purpose of this paper was to investigate the effect of IoT technologies on the travel experience and SWB. Based on TTF, this study proposed a model for examining the extent to which and factors that affect individuals' SWB with the use of IoT. The model was validated through a sample of 497 participants who were recruited from city break travellers in the United Kingdom. Overall, to best convey the value of this paper, the theoretical and managerial implications were detailed as follows:

Theoretical implications

This study extends previous works on the tourism experience and subjective well-being (Yu et al., 2018; Saayman, et al., 2018; Chen et al., 2016) by exploring the role of IoT in the context of city breaks in terms of TTF theory and Hofstede's (1980) cultural dimensions of individualism. To the best of our knowledge, our study has taken the first step to examine the influence of IoT on consumers' well-being by identifying the major influential factors, and the extent to which they affect SWB when utilizing IoT applications for city breaks.

Practical implications

This study also provides valuable suggestions for business managers who aim to achieve their business goals and enhance their customers' SWB with the use of IoT. For example, this study suggests business managers to develop a promotional message that emphasizes the added value and their services/products strengths with the use of IoT. Our results also suggest that cultural characteristics should be considered when developing marketing strategies. Managers should be optimizing customer paths based on cross-cultural dimensions to enhance their customers experience throughout the consumption journey.

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STOCK-FOR-STOCK ACQUIRERS' EARNINGS MANAGEMENT AND REGION-SPECIFIC INSTITUTIONAL CHARACTERISTICS OF TARGET COMPANIES

Ibrahimi, Mohammed; El Baghdadi, Fayçal

ENCG Casablanca - Hassan II University of Casablanca, Morocco

ABSTRACT

The following research studies stock-for-stock acquirers' earnings management targeting the MENA region and investigates the effect of the quality of target companies' institutional environment on the acquirers' earnings management behavior preceding stock-for-stock M&A deals. Using accruals and operational activities, this study is conducted using a sample of 98 stock-for-stock M&A made between 2009 and 2019. We have compared this sample to a similar control sample of 105 acquirers who targeted Northern Europe, a region characterized by an efficient institutional environment. According to our findings, acquirers targeting the MENA region manipulate accruals and operating activities to increase earnings. Furthermore, we find that earnings management behavior becomes more evident and important for acquirers targeting regions characterized by institutional inefficiency, such as the MENA region, than for those targeting Northern Europe.

Keywords: Mergers and acquisitions; Earnings management; Stock-for-stock M&A; Institutional efficiency; Accrual earnings management; Real earnings management.

INTRODUCTION

In this study, we examine the earnings management strategies used by acquirers targeting the MENA region prior to stock-for-stock M&A transactions. More specifically, we investigate how the quality of target companies' institutional environments affects acquirers' motivations to engage in results management. In the context of developing markets, studies of earnings management in these operations, which are frequently related to wealth creation, destruction, and redistribution (Ibrahimi and Meghouar, 2019), are scarce in accounting and finance literature. The volume and importance of the global M&A market means that it is essential that we extend our understanding of the role of earnings management prior to M&A transactions in less developed institutional environments (Huang et al., 2019). In 2019 alone, the value of M&A deals in the MENA region (Morocco, Algeria, Tunisia, Libya, Egypt, Saudi Arabia, Yemen, Jordan, Qatar, Bahrain, United Arab Emirates, Kuwait, Sudan, Oman, Israel, Armenia, Malta and Cyprus) reached \$128 billion, a 66.8% increase over the previous

year (IMAA Institute, 2020). In contrast to developed countries, which are characterized by an efficient institutional system and a financial environment that protects shareholders' interests, MENA countries are characterized by a democratic deficit, low transparency, political instability, high corruption indicators, and a weak institutional and financial infrastructure (Beji, 2015). These factors are likely to exacerbate information asymmetry. As a result, information and transaction costs are increased and these factors may compromise the quality and relevance of financial information. These considerations may create a framework for earnings management prior to a stock swap involving MENA companies.

A number of studies have suggested that acquirers involved in stock-for-stock M&As engage in earnings management prior to the announcement of the transaction (Huang et al., 2019; Botsari and Meeks, 2018; Erickson and Wang, 1999). They assert that acquirers engage in upward earnings management in order to increase the value of their shares, consequently affecting the transaction cost by reducing the number of shares to be released. Thus, acquirers retain more wealth, preventing the dilution of power and capital.

We examine stock-for-stock acquirers' earnings management targeting the MENA region, alongside the way in which the quality of target companies' institutional environments influences acquirer motivations to engage in earnings management. The reasons for this empirical study include the scarcity of such studies for the MENA region, but also the fact that the configuration of the institutional and financial systems in the MENA region differs significantly from that of developed countries. Furthermore, the last three decades have seen significant reforms in the financial and institutional infrastructure of MENA countries (Ibrahimi and Amine, 2020).

While the majority of studies on earnings management have focused solely on the manipulation of earnings through accruals (Chang and Pan, 2020; Cupertino et al., 2015), our study investigates another dimension of earnings management centered on real activities. Moreover, few studies have looked at the impact of target companies' institutional environments on acquirers' motivations in engaging in earnings management (Baik et al., 2015). Our study fills this gap, comparing two different institutional environments in order to examine how the quality of target companies' institutional environments affects acquirers' motivations to engage in earnings management. Furthermore, to the best of our knowledge, this is the first study to look at the earnings management practices used by acquirers in M&A deals involving MENA targets. Additionally, our findings relate to both managers and financial market participants, aiming to better predict and anticipate earnings management behaviors caused by stock-for-stock M&A transactions, and the magnitude of the phenomenon is likely to be influenced by institutional considerations that acquirers face.

Sections 1 and 2 of this paper present a literature review on accounting and operational practices used by acquiring company managers, the institutional environment in the MENA region, and our

hypotheses. In section 3, we provide a detailed description of our sample and the methodology used. Sections 4 and 5 will be devoted to the presentation and discussion of our findings.

EARNINGS MANAGEMENT AND THE MENA REGION CONTEXT

Several works in the accounting literature assume that stock-for-stock acquirers deliberately manipulate earnings before an operation is announced (Chang and Pan, 2020; Huang et al., 2019). Defining the exchange ratio is an important step in any stock swap transaction. This ratio relates to the proportion of new shares issued to current owners of a company that has been acquired or merged with another. In the context of information asymmetry, it is likely to be a source of significant conflicts of interest, and can be highly contentious as it has a decisive effect on the power and wealth of shareholders at the end of the operation. Given the importance of accounting criteria in determining exchange ratios, stock-for-stock M&A transactions can provide a favorable context for earnings management (Djama and Boutant, 2006), as acquirers can make accounting and operational manipulations that improve the value of their company in order to obtain a better exchange ratio for the stocks swapped in the acquisition, while reducing transaction costs and obtaining advantageous terms to maximize their wealth.

According to Erickson and Wang (1999), there are several factors which may motivate acquirers to engage in earnings management. After a transaction is completed, stock swaps result in a dilution of power and may expose managers to a loss of control. This encourages acquiring company managers to make accounting and operational decisions that will increase the value of their company's shares. As a result, fewer shares will be exchanged with the target, reducing the risk of dilution and loss of control. In addition, upward earnings management reduces transaction costs by reducing the number of new shares used to integrate new shareholders, resulting in a more favorable exchange ratio. Moreover, the authors suggest that target companies anticipate and consider the acquiring company's earnings management approach during the negotiation process.

The magnitude of this phenomenon is likely to be higher in an inefficient institutional environment. Dechow et al. (2010) suggest that institutional factors, such as institutional structure, standard accounting quality, the legal system and capital markets influence company motivation to engage in earnings management. Similarly, Karim et al. (2016) note that the institutional characteristics of a country influence firm earnings management. In the context of M&A, Baik et al. (2015) studied the effects of target companies' institutional environments on acquirers' earnings management behavior in a sample of US acquiring firms in cross-border mergers from 1984 to 2012. The authors discovered that earnings management by acquirers is most evident in an uncertain institutional environment.

The institutional configuration of developing countries, such as those in the MENA region, differs from that of developed countries. Despite ongoing efforts to improve their institutional frameworks, MENA countries continue to exhibit many deficiencies. As Belkhir et al. (2016) state, firms located in MENA countries operate within an inefficient institutional framework with insufficient investor protection, insufficient bankruptcy regimes, and unstable property rights. According to Beji (2015, p. 14), "the high level of corruption, administrative slowness, weak protection of property rights, exclusion of the population from political debate, and the absence of proper governance rules have not allowed these countries to increase their level of institutional development to the minimum required."

Despite the presence of oil resources and economic reform measures intended to encourage investment and attract foreign direct investment, growth in the MENA region is slow in comparison to the region's potential (Kutan et al., 2017; Cherif and Dreger, 2016). Moreover, the primary corruption indices, such as those issued by Transparency International and the World Bank's Worldwide Governance Indicators, show a high level of corruption in several countries in the region when compared to the world average. This situation highlights lack of political integrity and the institutional deficiencies present in the MENA region (Beji, 2015). Recent political turmoil in many MENA countries, alongside revolutions and internal and external threats to national security, have had a significant impact on economic growth prospects and discouraged foreign and domestic investment. According to Arosa et al. (2015), political instability is associated with ineffective contract enforcement and weak legal protection for shareholders and investors, potentially leading to information asymmetry and increased transaction costs.

Over the last two decades, MENA countries have implemented a series of liberalization policies in order to develop their financial sectors (Belkhir et al., 2016; Naceur and Omran, 2011). However, their financial systems are mostly dominated by banks and continue to be characterized by a high level of public bank involvement, in spite of privatization efforts in several countries throughout the region. Furthermore, the financial environment in the majority of these countries is underdeveloped, illiquid, and lacks transparency (Abadi and Silva, 2019).

Despite a significant increase in market capitalization, from \$895 billion in 2009 to over \$3.5 trillion in 2019 according to 2020 World Bank statistics, market capitalization in the MENA region remains relatively modest when compared to the global average. The volume of transactions is low, and participation by institutional and foreign investors remains suboptimal. Naceur and Omran (2011) note that, despite structural reforms in recent decades, stock markets in the MENA region remain underdeveloped, with a small number of listed companies, low stock floatation, and insufficient trading.

HYPOTHESES DEVELOPMENT

Accrual-based earnings management

Accruals are accounting adjustments used in the transition from cash-based accounting to accrual-based accounting, as defined by accounting principles. They primarily include changes in working capital requirement (WCR), depreciation and amortization, and other calculated income and expenses. Accruals are purely accounting transactions that do not generate cash flows and can thus serve as an earnings management mechanism in the context of stock-for-stock M&A transactions. Total accruals can be divided into non-discretionary accruals, which result from the normal accounting adjustments required to apply accepted accounting principles, and discretionary accruals, which reflect earnings management.

Using a sample of 55 US acquiring companies between 1985 and 1990, Erickson and Wang (1999) revealed significant positive discretionary accounting adjustments by acquiring companies of 2.3% assets, particularly during the quarters preceding the transaction. In a study of the Malaysian context, Abdul Rahman and Abu Bakar (2003) found that acquirers manage their earnings upwards in the year preceding the acquisition, based on a sample of 125 acquirers involved in stock-for-stock M&A between 1991 and 2000. Louis (2004), examining 373 mergers of publicly traded US companies, found that acquirers manage their earnings upwards in the quarter preceding the announcement of a stock-for-stock deal. Djama and Boutant (2006) obtained similar results using a sample of 67 French mergers between 1999 and 2005, estimating that acquirers' earnings management accounted for 6.7% of total assets.

Baik et al. (2007) investigated earnings management in a sample of 1507 US-listed businesses between 1990 and 1998 and discovered that acquirers manage earnings upwards prior to a stock-for-stock transaction in order to decrease the cost of the operation. Botsari and Meeks (2008) found that acquirers managed earnings in the year preceding stock-for-stock bids in a study spanning 42 UK listed businesses from 1997 to 2001.

In a similar vein, Higgins (2013), examining a sample of 133 merger deals from 1990 to 2004, found that Japanese acquirers engage in earnings-increasing accounting manipulation in the year preceding deal announcement.. Botsari and Meeks (2018) recently confirmed earlier findings using a sample of 113 pure stock-for-stock transactions by UK acquirers between 1997 and 2010. They discovered that earnings management prior to a stock-for-stock M&A is more pronounced in "hot" markets, i.e. in periods when stocks are overvalued, and that the economic benefits of engaging in earnings management in this market context are substantial. The method used to estimate abnormal accounting adjustments in the majority of these studies was based on Jones' (1991) model or a modified version by Dechow et al. (1995).

H1: Acquirers manage their results upwards by manipulating accruals prior to the transaction announcement.

Real earnings management by operating activities

Earnings management can also take place through real activities intended to reach specific results targets (Chang and Pan, 2020; Zhu et al., 2015), for instance:

- Sales stimulation: applying more attractive discounts, or offering more advantageous credit terms;
- Reduction of discretionary expenditures: selling, general and administrative costs (SG&A);
- Overproduction: to report lower cost of goods sold and to take advantage of economies of scale.

In some circumstances, activity-based earnings manipulation can effectively replace accrual-based earnings management (Graham et al., 2005). Incentives to manage earnings prior to stock swap, as suggested by Erickson and Wang (1999), may also provide an explanation for activity-based earnings management.

Zhu et al. (2015) examined the earnings management of Chinese private companies that executed reverse mergers by acquiring US-listed enterprises between 1990 and 2011. They observed that Chinese firms significantly manipulate their earnings upwards prior to mergers through real earnings management based on operating activities, also manipulating accruals to very high levels. Huang et al. (2019) investigated earnings management in a sample of 1680 mergers completed by 1208 Chinese public companies between 2000 and 2015. Their results indicate that acquirers are motivated to increase their stock prices prior to a merger announcement through earnings management via discretionary accruals and through real activities in order to reduce the cost of the operation. More recently, Chang and Pan (2020) considered whether merger transaction initiators use real earnings management to improve results prior to the announcement of a deal. Analysis of a sample of 586 mergers financed by publicly-traded US firms between 1990 and 2013 shows that acquirers have abnormally high levels of credit sales and unusually high levels of overproduction preceding the merger announcement.

H2: Acquirers manage their earnings upwards through manipulation of operating activities prior to the transaction announcement.

MENA institutional characteristics and acquirers' earnings management

According to indicators from the World Bank's Worldwide Governance Indicators (WGI) database, shown in table 1, the institutional and financial configuration of MENA countries is relatively undeveloped and characterized by relatively low governance scores when compared to countries with a strong institutional and financial climate, such as those in the Northern European region. These countries have the highest rankings for all governance parameters (Marakbi, 2017).

Worldwide Governance Indicators (2019)	Voice and Accountability	Political Stability	Government Effectiveness	Regulatory Quality	Rule of Law	Control of Corruption
MENA	24	28	43	41	43	41
Northern Europe	98	73	99	97	98	97

Table 1. *Worldwide Governance Indicators in 2019 (WGI - World Bank)*

Well-developed and well-regulated institutional and financial requirements are considered as prerequisites for efficient resource allocation. These conditions can also assist developing countries in achieving long-term economic growth (Kutan et al., 2017; Cherif and Dreger, 2016). Furthermore, they play important roles in improving intermediation efficiency by reducing transaction and information costs (Kutan et al., 2017). An inefficient institutional environment, a poor financial ecosystem, and weak or non-existent control systems are likely to exacerbate informational asymmetry and, as a result, increase information and transaction costs. Under such conditions, the magnitude of earnings management by acquirers may be higher, with the aim of creating more favorable conditions for the operation, minimizing the possible consequences of adverse selection, and offsetting the effects of information asymmetry that may affect the value of target companies (Martynova and Renneboog, 2011).

However, an efficient institutional environment surrounding the target will lead acquirers to be more cautious in terms of earnings management. In this instance, there is an increased risk that earnings management will be noticed, and this could change the conditions of a deal or even result in its cancellation. The detection of such behavior may have a major impact on the value of the acquirer's stocks.

H3: In stock-for-stock M&A transactions, acquirers manage their earnings through accruals only if the target operates in an inefficient institutional environment.

H4: In stock-for-stock M&A transactions, acquirers manage their earnings through operating activities only if the target operates in an inefficient institutional environment.

DATA AND METHODOLOGY

Data and sample

We tested our hypotheses using two similar samples for the period 2009-2019. The first sample was made up of acquirers who targeted MENA companies. The second sample was our control sample, in which acquiring companies targeted the Northern European region (Sweden, Finland, Denmark, the Netherlands, Norway, Germany, Switzerland and the United Kingdom). Our aim in constructing these two samples was to compare the impact of the institutional environment of target countries on acquirers' earnings management decisions.

Our test and control samples were selected based on the following criteria: acquirers must be publicly traded non-financial company; they must have acquired a majority stake in the target company; all or part of this operation must have been financed by shares. Our M&A and financial data was collected from the Zephyr and Osiris databases (Bureau Van Dijk). Given that M&A events are, by their very nature, exceptional, several financial transformations are observed around the date of the operation. Thus, only the first transaction was retained for our study in cases where multiple transactions were made by the same acquirer. We initially identified 287 partially or entirely stock-financed M&A transactions have been identified. The selection was then reduced based on our criteria, allowing us to identify 103 stock-financed transactions operated by 98 acquirers targeting the MENA region. For the control sample, 109 transactions involving 105 acquirers targeting Northern European countries were identified.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Test sample	3	9	6	6	10	7	11	13	11	13	9	98
Control sample	4	6	7	6	6	7	10	17	9	12	21	105

Table 2. *Distribution of test and control sample operations by year*

Estimating earnings management

In accounting research, earnings management is observed for the period preceding the announcement of an operation, since the financial statements of the accounting year prior to the operation are used as the basis for the valuation of the companies involved in M&A transactions. Our models use estimated regression coefficients to estimate the “normal” evolution of our variables. The abnormal component, revealing earnings management, is the difference between the observed value and the estimate obtained using these models (Cupertino et al., 2015).

Accruals are made up of income and expenses resulting from accounting entries that did not generate cash flows. According to Dechow et al. (1995), accruals are calculated as the change in working capital requirement (WCR) minus depreciation:

$$TA = \Delta WCR - Depreciations$$

We estimated the normal evolution of accruals using the modified version of the Jones model (Dechow et al., 1995). To avoid heteroscedasticity problems, all variables in the regression were standardized by lagged total assets:

$$\frac{TA_{it}}{Assets_{it-1}} = \alpha_{1i} \frac{1}{Assets_{it-1}} + \beta_{1i} \frac{\Delta SALES_{it} - \Delta AR_{it}}{Assets_{it-1}} + \beta_{2i} \frac{PPE_{it}}{Assets_{it-1}} + \varepsilon_{it} \quad (1)$$

where, for fiscal year t and firm i , TA represents total accruals, $Assets$ represents total assets and $\Delta SALES$ is the change in revenues, ΔAR represents change in account receivables, PPE is the gross value of property, plant and equipment, α , β_1 and β_2 are regression parameters, and ε is the error term.

Discretionary accruals are calculated by deducting total accruals from normal accruals estimated using the aforementioned regression model.

Activity-based earnings management consists of controlling operational activities that affect cash flows in order to manipulate results. Based on the literature (Dong et al., 2020; Roychowdhury, 2006), we chose to investigate the following operational activities:

Sales manipulation: Companies may apply exceptional price discounts or offer more flexible credit terms near the end of the period in order to stimulate sales and increase earnings

Reduction of discretionary expenses: Managers can implement real earning management by reducing discretionary expenses in order to increase reported results. These expenses include selling, general and administrative expenses, R&D expenses, marketing and advertising expenses

Overproduction: Managers can increase production to enhance earnings. By producing more units, fixed overheads can be spread over a larger number of units, reducing fixed costs per unit (Chang and Pan, 2020). As a result, the reported cost of goods sold (COGS) is reduced, allowing the company to achieve larger operating margins.

Following Huang et al. (2019) and Roychowdhury (2006), we express normal CFO as a linear function of sales and change in sales:

$$\frac{CFO_{it}}{Assets_{it-1}} = \alpha_{1i} \frac{1}{Assets_{it-1}} + \beta_{1i} \frac{SALES_{it}}{Assets_{it-1}} + \beta_{2i} \frac{\Delta SALES_{it}}{Assets_{it-1}} + \varepsilon_{it} \quad (2)$$

Roychowdhury (2006) estimated normal levels of discretionary expenses as a function of lagged sales:

$$\frac{DISX_{it}}{Assets_{it-1}} = \alpha_{1i} \frac{1}{Assets_{it-1}} + \beta_{1i} \frac{SALES_{it-1}}{Assets_{it-1}} + \varepsilon_{it} \quad (3)$$

Huang et al. (2019) and Roychowdhury (2006) estimate the normal level of production costs using the following equation:

$$\frac{PROD_{it}}{Assets_{it-1}} = \alpha_{1i} \frac{1}{Assets_{it-1}} + \beta_{1i} \frac{SALES_{it}}{Assets_{it-1}} + \beta_{2i} \frac{\Delta SALES_{it}}{Assets_{it-1}} + \beta_{3i} \frac{\Delta SALES_{it-1}}{Assets_{it-1}} + \varepsilon_{it} \quad (4)$$

Using these equations, CFO is cash flow from operations; DISX represents discretionary expenses; PROD is production costs; SALES represents sales revenues; $\Delta SALES$ is the change in revenues; α_1 , α_2 , α_3 are regression parameters; and ε is the error term.

RESULTS AND ANALYSIS

Descriptive analysis

Table 3 presents the accounting characteristics of our test and control samples in the year prior to the stock-for-stock M&A announcement.

	Average		Median		Standard deviation		Minimum		Maximum	
Samples	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Total assets	1 203 419	1 236 653	102 451	182 495	3 362 557	2 195 293	877	417	26889000	14251563
Turnover	612 110	780 852	95 150	167 668	1 458 658	1 273 756	4	34	9 689 103	7 385 958
Net income	38 449	39 319	-76	4 670	146 064	115 131	-209 840	-229 126	926 076	648 757

Table 3. *Characteristics of the test and control samples for t-1 (In thousands of dollars)*

Table 4 shows variations in accounting items that may reflect manipulation prior to stock-for-stock M&A announcements (t-1) for our test and control samples. This approach is designed to highlight the existence of abnormally high variations preceding the operation.

Variations (t-1)	Expected sign	Test sample: 98			Control sample: 105		
		Average	Median	Student's t-test	Average	Median	Student's t-test
Accruals	+	0,0878	0,0184	1,767*	0,0003	-0,0146	0,147
WCR	+	0,1446	0,0138	2,080**	0,0346	0,0170	-1,392
Depreciation	-	-0,0189	0,0000	-1,692*	0,0012	0,0008	-0,028
Turnover	+	0,1324	0,0225	0,496	0,0767	0,0602	-0,804
Discretionary expenses	-	-0,0677	-0,0001	-1,869*	-0,0459	-0,0028	-1,684*
Production costs	+	0,0078	0,0009	0,218	0,0368	-0,0004	0,511
Operating income	+	0,0826	0,0133	2,107**	0,0191	0,0027	0,987
Net income	+	0,0991	0,0127	2,589**	0,0145	0,0055	0,628

** and * indicate 5% and 10% level of significance respectively.

Table 4. *Variations in accounting items for the test and control sample in t-1*

According to the evidence in Table 4, a statistically significant increase in accruals of 8.26% was observed for our test sample, implying a positive impact on the results. This increase in accruals is primarily due to a 14.46% increase in working capital and a 1.89% decrease in depreciation. In terms of operating activities, a significant decrease of 6.77% in discretionary expenses was observed. The manipulation of operating activities, particularly by reducing discretionary expenses in the year preceding the announcement of a transaction, should also have a positive impact on operating results and, by extension, net income. The operating income and net income of acquirers in our test sample increased by 8.26% and 9.91%, respectively in the year preceding the stock-for-stock M&A transaction. Variations in turnover and production costs suggest a positive effect on results, but they are not statistically significant.

In contrast to in the observations for our test sample, our control sample of acquirers targeting companies in Northern Europe showed a stabilization of Accruals in t-1 compared to t-2. Analysis of the Accruals components reveals that the variation in working capital and depreciations shows very slight, insignificant increases of 3.46% and 0.12% respectively in the year preceding the transaction announcement. Furthermore, only discretionary expenses decreased by 4.59%, which was statistically significant. While a decrease in t-1 should have a positive impact on results, an examination of variations in operating income and net income reveals that it had no significant impact on these

variations. Operating income and net income increased by statistically insignificant values of 1.91% and 1.45% of total assets in t-1.

According to our findings, acquirers appear to employ accounting and operational practices that have a positive impact on the level of published results in the year preceding the announcement of a stock-for-stock M&A. Furthermore, analysis of accounting item fluctuations tends to suggest that there is a causal relationship between the acquirers' accounting and operational methods and M&A events. However, the analysis of variations in accounting items does not reveal the scale of earnings management.

Estimating earnings management

This step involves estimating the normal evolution of the elements that are likely to be manipulated in order to manage results using the regression models described above. The difference between the estimated and actual levels may then be used to approximate the abnormal proportion of accruals and operational activities. The results of this approach support our preliminary findings shown above.

Table 5 gives a summary of the average level of accruals and operational activities reported in the financial statements, the level estimated using our regression models, and the abnormal element, i.e. the difference, which indicates earnings management.

	Test sample (t-1)			Control sample (t-1)		
	Observed	Estimated	EM	Observed	Estimated	EM
Accruals	-0,001	-0,029	0,0282*	-0,018	-0,020	0,002
CFO	0,017	0,019	-0,002	0,023	0,039	-0,016
PROD	0,372	0,361	0,012	0,446	0,423	0,023
DISX	0,324	0,403	-0,079*	0,397	0,434	-0,037*

EM: Earnings management; CFO: Cash flow from operations; PROD: Production costs; DISX: Discretionary Accruals; * indicate 10% level of significance.

Table 5. Estimation of earnings management

The results in Table 5 show that companies in our test sample have a significant abnormal increase in accruals, equal to 2.8% of total assets, prior to the M&A announcement. This finding confirms our first hypothesis of upward earnings management by acquiring companies targeting the MENA region. Furthermore, we find a 0.2% decrease in operating cash flow and a 1.2% increase in production costs as a percentage of total assets. These abnormal variations, however, are insignificant. The decrease in discretionary expenses is significant, accounting for 7.9% of total assets. This result confirms our second hypothesis.

Comparing the test sample to the control sample, made up of acquirers who targeted companies in the northern European region, we see that the increase in accruals is significant for the test sample but not for the control sample, confirming hypothesis 3. Both samples revealed significant levels of real earnings management through operational activities. Despite the abnormal decrease, discretionary

spending in our control sample remained low (3.7%) compared to the test sample (7.9%): based on these findings, we can reject the fourth hypothesis.

DISCUSSION

After analyzing the accounting items in our test sample, which consisted of acquirers targeting companies in the MENA region, we observed increased earnings management prior to stock-for-stock M&A transaction, aimed at increasing stock value and, as a result, reducing transaction cost by reducing the number of shares to be emitted. When an acquirer issues and swaps fewer shares, more wealth is preserved while power and capital dilution is avoided. These findings support previous research on the phenomenon of earnings management prior to stock-for-stock M&A transactions (Chang and Pan, 2020; Huang et al., 2019; Botsari and Meeks, 2008; Erickson and Wang, 1999).

More specifically, Accruals increased abnormally among acquirers targeting companies in the MENA region, reflecting a desire to boost earnings in the year preceding the transaction by using purely accounting-based methods and the latitude within regulations. This strategy is based on positive accounting theory, which asserts that managers can use the latitude in accounting rules efficiently, to maximize shareholder wealth and company value, or opportunistically, to achieve personal goals at the expense of other stakeholders (Watts and Zimmerman, 1986). Simultaneously, acquirers targeting the MENA region applied real earnings management by coordinating operational efforts prior to stock-for-stock M&A transactions in order to stimulate profits and thus increase the value of their shares. Reducing discretionary expenses is a preferred option used by acquiring company managers targeting the MENA region in their upward earnings management strategies during the year preceding the announcement of an M&A transaction. Discretionary expenses include advertising, R&D, and selling, general & administrative expense (SG&A). We thus conclude that managers are willing to sacrifice future performance by deferring or canceling these expenses, especially when the expenses involved do not immediately

generate income, in order to increase short-term earnings (Botsari and Meeks, 2018; Gong et al., 2008).

An examination of the earnings management methods used in our test sample and our control sample reveals a difference in the earnings management approaches used by acquirers prior to stock-for-stock M&A transactions. The earnings management strategy employed by the acquirers in our control sample of acquirers targeting the Northern Europe region is primarily focused on operational activities, particularly through the reduction of discretionary expenses, which may include selling expenses, general and administrative expenses, commercial and advertising expenses, personnel expenses, etc. Furthermore, we see that the extent of earnings management based on operational activities in our control sample is less pronounced than that observed among acquirers targeting the MENA region. However, there was no significant variation in Accruals before stock-for-stock M&A operations in our control sample. This indicates that earnings management behavior is more evident and occurs on a greater scale in the case of acquirers targeting institutionally inefficient regions (Baik et al., 2015), such as the MENA region.

Accounting manipulations based on accruals have become harder to implement since the establishment of the International Financial Reporting Standards (IFRS) in 2006 (Ho et al., 2015). Earnings management through accruals is only possible at the end of an exercise or quarter. Furthermore, managers cannot be sure that the accounting decisions they make will be approved by auditors in time, or that using these accounting methods will result in the desired level of profits (Zhu et al., 2015). Moreover, acquirers have limited flexibility in managing accruals as they depend on business operations, stable and current assets, regulatory requirements, and accruals from previous years. Taking these considerations into account, our research focused on earnings management through operational activities, seen as an inseparable component of results management through accrual manipulation. Real earnings management through operational activities is a more common and safer option. It is also harder for auditors to detect, based solely on operational decisions made by managers (Zhu et al., 2015; Graham et al., 2005). This substitution role is especially strong in stricter regulatory climates, in which accrual-based earnings management is likely to be harder (Huang et al., 2019).

Our findings highlight the effect of the target's institutional environment on acquirers' earnings management behavior, and are consistent Baik et al. (2015) and Dechow et al. (2010)'s conclusions that institutional parameters, such as the quality of accounting standards, the legal system and the various incentives provided by capital markets, influence a company's earnings management behavior. Acquirers targeting efficient institutional environments are more likely to reorient their operational activities in order to manage their earnings upwards and avoid accounting-based manipulations due to the increased risk of detection, which may result in alterations to the terms of a deal or even

cancellation. Importantly, the detection of such behavior may have a significant impact on the value of the acquirer's shares as well as their performance in the medium and long term.

The efficiency of institutions in target countries significantly reduces the risk of adverse selection, lowering information and transaction costs, which would encourage acquiring firms' managers to moderate their earnings management prior to the transaction. However, when targets operate in inefficient institutional environments with underdeveloped financial systems and relatively high corruption indices, the regularity and reliability of published financial information is likely to be questionable, exacerbating informational asymmetry, increasing transaction costs and augmenting the risk of adverse selection (Baik et al., 2015). Under such conditions, acquirers practice upward earnings management in order to minimize the risk of adverse selection while counteracting the effects of informational asymmetry.

CONCLUSION

Acquirers targeting MENA countries exhibit significant abnormal levels of Accruals and operational activities in the year preceding the operation. The comparison of our two samples revealed that earnings management is more prevalent among acquirers targeting MENA companies. Given the inefficiency of the MENA region's institutional framework, acquirers engage in upward earnings management prior to a transaction in order to minimize the repercussions of adverse selection and to offset costs associated with high uncertainty concerning the target.

Our findings contribute to the accounting and financial literature in a number of ways. Firstly, these results support the findings of the few existing studies on the phenomenon of earnings management prior to stock-for-stock M&A transactions. Secondly, we have shown that earnings management is more evident in cases where acquirers are faced with inefficient institutional contexts; such behaviors are intended to avoid the risks associated with potential adverse selection and the expenses associated with high uncertainty. Thirdly, our findings may be of value for managers and financial market participants, helping them to predict and anticipate earnings management behaviors during stock-for-stock M&A transactions; we have also shown that the magnitude of the phenomenon is likely to be influenced by institutional considerations faced by acquirers. Nevertheless, the size of our sample, and thus the general applicability of our findings, was limited by a lack of financial data for mid-sized companies. There are several possibilities for further research in this area, including a focused study of the impact of the target companies' institutional context on post-acquisition performance and on the long-term performance of acquirers.

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INCORPORATION OF TECHNOLOGY TO ENHANCE LUXURY FASHION E-COMMERCE: A CASE STUDY OF PAKISTAN

Idrees, Sadia; Vignali, Gianpaolo; Gill, Simeon

Department of Materials. Fashion Business Technology, University of Manchester, Manchester, UK

ABSTRACT

A Qualitative research study has been conducted on Pakistan's luxury apparel products and the interactive web 3.0 metaverse fashion e-commerce marketing tools which have been utilised by various international luxury brands. The interactive tools have developed extensively for benefit of both consumers and fashion retailers to enhance shopping experience online (Idrees et al., 2020b). Consequently, the case study intended to examine the Pakistani luxury unstitched fashion apparel and Ready to wear (dissatisfaction with standard size charts) (Faust and Carrier, 2009) meant for augmenting the mass-customisation of garments through utilising 3D body mobile scanner apps, and how fashion e-commerce shopping is enhanced with interactive tools of Virtual try-on and Augmented reality. A detailed discussion about Luxury unstitched and ready to wear apparel bought by women of Pakistan, embellishment techniques to enhance the beauty of garment and the strategy to enhance fashion e-commerce with examples of international luxury brands is carried out. Case study determined that Pakistani luxury unstitched and ready to wear apparel is loved across the borders because of talent and craftsmanship and is thriving rapidly due to exquisite quality and design uniqueness (Rehman, 2014). However, the Pakistani fashion e-commerce lacks technology driven e-commerce marketing and selling interactive tools. Therefore, examples of international brands would be helpful for Pakistani fashion brands to enhance the e-commerce environment with latest technologies such as Virtual Try-on, Augmented reality, and 3D Body Scanning Mobile Applications. Moreover, examples of unstitched apparel product and interactive e-commerce technologies would be beneficial for European and worldwide market to enhance mass-customisation approach.

Keywords: Unstitched Apparel, Pakistan, Fashion e-commerce, Mass-customisation, Luxury Fashion, International Business, Virtual try-on, Augmented Reality, 3D Body Scanning, Mobile Scanning

INTRODUCTION

A case study has been conducted on Pakistan's luxury apparel products and the innovative e-commerce technology driven marketing strategies that can be incorporated to enhance the fashion e-

commerce. Therefore, the research aim of the study is to examine the luxury unstitched fashion apparel and Ready to wear meant for enhancing the mass-customisation of garments through 3D body scanning, and how interactive fashion e-commerce is achieved with additional features of Virtual try-on and Augmented reality. Recently, there are several luxury brands, which are known for introducing products and services that are lavish, deemed, highly desirable, distinctive, highly crafted and personalise facilitates, be it comfort, the pleasant presence or the charm of having it all (Roberts and Armitage, 2015). Pakistan is also known for its luxury products which are bought globally. Fashion market is the prime segment, anticipated volume is US\$3,893m in 2021. In 2021, the employer infiltration of e-commerce will be 22.8% and is anticipated to hit 26.9% by 2025 (Statista, 2020). Unstitched luxury apparel products are produced in Pakistan and sold worldwide. The demand of this product has increased because consumers get personalise experience as this product is tailored according to consumers body measurements. Fashion retailers in Pakistan are still using manual tape measurement methods which is not applicable for fashion e-commerce because of human error involved in extraction of manual measurements (Almalki *et al.*, 2020). However, recently user-friendly mobile application scanners have been introduced to be used by consumers and retailers without any technical assistance (Idrees *et al.*, 2020a). The technology has minimised the human error and time of extracting measurements which permits manufacturers to produce customised garments for consumers in e-commerce setting (Idrees *et al.*, 2020a). Moreover, the sizing system such as numerical (8, 10, 12) and alphanumerical (S, M, L) are inadequate because each country, population (US, UK, Pak, EU etc) has different body type and size. Fashion. Therefore, its challenging to fulfil the requirement of consumers worldwide in an e-commerce environment where consumers cannot try on garment to find their right size (Reid *et al.*, 2020). Pakistani fashion e-commerce lacks the virtual trying on feature to buy confidently right size and fitted garment (Idrees *et al.*, 2020b). Virtual try-on technology is recently amalgamated with 3D full body scanning (Asizer, 2016). It is vital to ensure right size and fit as well as virtual try-on option to enhance e-commerce. 3D Body scanning along with virtual fitting rooms have been introduced and has arouse a healthy competition among online retailers. Technology has enabled consumers to try their clothes on using online technology driven interfaces for at home shopping (Idrees *et al.*, 2020b). Therefore, it enabled consumers to try-on virtually a garment on their personalise avatar. Similarly, virtual fitting rooms (VFR) combined with augmented reality (AR) offer an advantage of virtual trying-on with mix and match accessories as well as an option of overlaying a product on personalise Avatar (AR) during online real-time experience shopping (Martínez *et al.*, 2014). The innovative tools such as virtual models, virtual catwalks, 360-degree views, apparel heat maps, and style recommendation libraries are offered by recent virtual fit technology platforms for ease in selecting appropriate garment online (Kim and LaBat, 2013)

METHODOLOGY

Detailed background research on the luxury unstitched fashion apparel in Pakistan textile industry was undertaken for this case study. Most recent and relevant literature was reviewed on the luxury apparel products. Latest marketing strategies have been reviewed for incorporation into Pakistani fashion brands which considered elemental in branding the product, improving sales, and increasing profits. Qualitative data collection method has been selected. To determine the information snowball sampling method has been adopted by writing keywords such as unstitched and ready to wear apparel in Pakistan, 3D body scanning mobile application, augmented reality and virtual try-on using databases such as Google, Google Scholar, and academic journals.

LITERATURE REVIEW

The literature review comprises detail discussion on Luxury and its demand by consumers globally. Fashion e-commerce of Pakistan has developed extensively, yet needs to establish technology driven features, web 3.0 technologies such as 3D Body scanning, Virtual try-on and Augmented reality that can enhance the fashion e-commerce of Pakistan.

Luxury

Luxury can be recognised from two vital perspectives: consumption perspective, which implies to the spiritual value of status attaining a distinctive customer engagement. Secondly, a product perspective, which implies to its premium quality, high price and craftsmanship (Fionda and Moore, 2009). It is determined by (Mintel, 2011), 60% of luxury buyers shop for luxury products for pampering themselves and for their social gatherings. The second buying motivation is premium quality and manufactured craftsmanship. Today, the luxury industry is accomplishing a level of justice with both tailor-made and ready to wear products (Kapferer, 2012). New luxury entrepreneurs have prospered substantially in previous two decades due to innovation in technology, internet and globalisation and have enhanced approach of global consumers (Okonkwo, 2007). The affluent consumers are satisfied with bespoke and customised services, particularly who seeks for the uniqueness and distinctiveness (Mintel, 2011; Okonkwo, 2007). Moreover, luxury retailers are adjusting their business strategies completely to compete effectively by extending their product lines as well as incorporation of latest web 3.0 technology features (Idrees et al., 2020b ; Okonkwo, 2007). The demand for luxury goods and services has always been linked with the level of income of an individual, higher income levels lead to increased levels of dispensable wealth and feeling the need of buying expensive and exclusive stuff which everyone can't own (Ray and Vatan, 2013).

Fashion e-commerce of Pakistan

Fashion industry is an exceptionally vital part of the maneuverer of e-commerce businesses in Pakistan. Revenues and profits have been increased with online businesses, recorded 16.648 million fans on e-commerce platforms. The increase of traffic is due to the occurrence of fashion shows and other types of fashion events in Pakistan (Arifeen, 2017). Fashion market is the largest segment, projected volume is US\$3,893m in 2021. In 2021 the user penetration of e-commerce will be 22.8% and is anticipated to hit 26.9% by 2025 (Statista, 2020). Although Pakistan e-commerce is developing due to increase in the use of mobile phones and internet facility worldwide, there are various technological challenges that are restraining the advancement of e-commerce industry in Pakistan (Iqbal et al., 2018). The latest e-commerce technology such as 3D body scanning apps, virtual try-on and Augmented reality has been discussed to determine its functionality and importance in fashion e-commerce.

Body Scanning

The advance technology of 3D body scanning is developed to extract body measurements for customisation of apparel products and visualisation of products on the personalise Avatar with selection of various styles and sizes online (Apeagyei, 2010). The technology is providing social and economic advantage to fashion e-commerce. In the past few years 3D body scanning technique is expensive and need technical assistance in using technology and is not available for common users. The usage was limited to high-end department stores and specialist sports retailers (Peng et al., 2012). Recently user-friendly mobile application scanners have been introduced to be used by consumers and retailers. Istook and Hwang 2001 determined the potential of 3D scanners for apparel industry because of getting digital endless number of linear and nonlinear measurements of human bodies rapidly within 1 or 2 min with a display of personalise avatar on computer screen. The technology has minimised the time of extracting measurements which allows garment construction companies to deliver mass customised garments for consumers (Istook and Hwang, 2001). A study determined that women between 35 and 54 years were comfortable with using this technology and they stated that they would be willing to try the body scanning again (Loker et al., 2004). Idrees concluded that Pakistani consumers are comfortable in using mobile application scanner for bespoke garment construction during online shopping. However, app should be effortless and user-friendly for enhancing fashion e-commerce (Idrees et al., 2020a).

Virtual Try-on

Virtual try-on technology is recently amalgamated with 3D full body scanning (Asizer, 2016). Therefore, it enabled consumers to try-on virtually a garment on their personalise avatar. The consumers are mostly concerned with "suit and fit" decisions for apparel shopping. Virtual fitting rooms (VFR) combined with augmented reality (AR) offer an advantage of virtual trying-on where

virtual product can be overlaid on consumers to try-on for online real-time experience (Martínez et al., 2014), to match accessories during online shopping, products can be viewed with 360-degree angles with zoom-in option for in-depth virtual examination on Avatar (Kim and LaBat, 2013).

Augmented Reality

Augmented reality is defined as "any system that is interactive in real time, registered in three dimensions and combines real and virtual" (Azuma, 1997). The information created by the computer is overlaid on the real images, thus a user can achieve physical reality with augmented technology (Berryman, 2012). Augmented reality technology is working as a "sensory substitution device" with the provision of cost advantages or creating new services and enhancing missing senses (Carmigniani, 2011). AR not only enhance vision, but also enhance sense of hearing, touch and smell (Sanganee, 2013). All field are getting benefit with this technology such as; Marketing, entertainment, media, sightseeing, fashion industry, medicine (Berryman, 2012), military, training, education, and retailing (Martínez, 2014). Similarly, Augmented reality is beneficial for fashion industry; thus, the industry is using this technology in various ways. AR applications allows user to get a quick information about a product (Yuen, 2011), The technology can be integrated as a strategy in fashion industry for marketing and selling of products with improved confidence of getting extra information about a product (Martínez et al., 2014). It has come up with various opportunities. For instance, with an increase in the use of smart phones with location-based services, augmented reality technology enhanced more attention (Berryman, 2012). It is evidenced that Fashion retailers are the early adopters of technology. It is estimated by Digi-Capital, 3.5 billion people will be using augmented reality by 2022, which is equal to 44% of the world's population. The CEO of Apple Tim Cook declared in Vogue interview that Augmented Reality is set to enhance shopping experiences and fashion runways. *"I don't think there is any sector or industry that will be untouched by AR,"* (Bhageria, 2021)

FINDINGS

The findings of the study encompass of Luxury apparel products of Pakistan which are designed exclusively to deliver personalise experience to consumers (Rehman, 2014). Products are luxurious owing to their quality, exclusiveness, timeliness, elegance and worth (Elan, 2021). The examples of technology driven features (3D body scanning, virtual trying-on and augmented reality) used by various international luxury fashion brands have been discussed as an evidence for Pakistani fashion retailers to use latest marketing feature to enhance online Luxury shopping.

Luxury Unstitched Apparel Product of Pakistan

Pakistan has a diverse market of unstitched fabrics which are tailored and sold worldwide (Latham, 2016). The demand of this product has increased because consumers get personalise experience as this product is tailored according to consumers body measurements. The South Asian countries particularly in Pakistan, the trend of unstitched garment makes sense to consumers as getting customised clothes is considered a luxury and an ease in getting personalised fit (Sapphire, 2019). The traditional art of tailoring is largely restricted to developing countries. Yet, the fashion industry worldwide appreciates the art of tailoring and taken it as an essential element (Ahmed et al., 2016). For customisation of garments traditional body measurement technique has been used to construct garments, which is a major obstacle to establish globalise mass-customised garments e-commerce business (Idrees et al., 2020a). This can be enhanced by the addition of 3D body scanning technology (digital human dimensions) for fashion e-commerce platforms to offer mass-customised garments in the international market with the right size and the fitted garment (Idrees et al., 2020a).

Luxury Ready to wear

Ready-to-wear clothing purchase is most feasible to consumers as well as for retailers because of consumption of less time as compare to customised garments which takes more time for construction (Green, 1997). Surveys have found that more than 50% women criticised (standard sizing system) ready-to-wear garments which lead to unsatisfied consumers (Faust and Carrier, 2009). The differences in the body types and sizes among individuals becomes the most pronounced in cases where the ready-to-wear clothing fail to provide what the customers seek (McKinney et al., 2017). Therefore, there is need to develop a system which has a potential to ensure that all body types are catered equally and that size choices are broadened (Jain et al., 2018). Therefore, its challenging to fulfil the requirement of consumers worldwide in an e-commerce environment where consumers cannot try on garment to find their right size. Online shopping is highly popular as it saves time and consumer receives the garment at home. Moreover, Pakistani fashion e-commerce lacks the virtual trying on feature to buy confidently right size and fitted garment (Idrees et al., 2020b). 3D Body scanning along with virtual fitting rooms (VFR) have been introduced and has arouse a healthy competition among online retailers. Technology has enabled consumers to virtually try a garment on their personalise avatar while online at home shopping (Idrees et al., 2020b). Systems like triMirror1 and Asizer provides a personalised experience for consumers, allowing them to try clothes on a personalise 3D avatar. Online shopping offers a dominant alternative to traditional retail shopping, rendering imperative for online retailers to seek ways to improve customer experiences (Asizer, 2016 ; Mallapragarda et al., 2016). The virtual 3D fitting room constitutes an interactive platform between the fashion brand and the customer that aims to reduce the bad fit rate and enhance overall confidence and satisfaction in the purchasing process (Asizer, 2016 ; Lee et al., 2013). Comparably, a study

determined that VFR increased the consumers intention to buy products and intention to demonstrate supremacy through the valued experience established by this tool (Beck and Crié, 2018).

Luxury Unstitched and Ready to wear Collection

Unstitched and ready to wear lawn, cambric, Swiss Voile, Jacquard and cotton is one of the most famous and widely used apparel product in summers and Spring season. Linen, Cambric, wool, Khaddar and Karandi fabrics are used for winter collection. The products are available in online stores of Pakistani fashion brands. Chiffon, Silk, Organza, Cotton Net, velvet and expensive net fabrics are used to design luxury collection in various shalwar/trouser, kameez and dupatta styles (Sapphire, 2019). Moreover, Bridal wear is one of the most expensive luxury product which is incredibly famous and in-demand internationally (Utsav Fashion, 2016).

Embellishment on Luxury Apparel (unstitched and ready to wear)

Luxury unstitched and ready to wear apparel are exclusively designed with hand and machine embroidery, digital textile printing and manual embellishments. The embroidery and printing industry faced serious competition owing to the advancements in technology, however it coped due to the development and adoption of new markets provided with new technologies and machinery that produced high quality embroidered and digitally printed textiles (Zuurveen, 2006). Manual hand embellishments which include embroidery with kora, dabka, cutdana or beadwork, Resham, zardozi, machli Tanka, gotta work, beadwork, tarkashi and stonework with exclusive motifs have been reigning the textile sectors for ages. Currently, apart from clothes; bags, clutches and footwear is adorned with embroidery and manual embellishments (Moghees, 2018). These embellishments are intricate and precise and they are mostly done on expensive fabrics (Elan, 2021). Therefore, consumers spend a substantial amount to buy Luxury products. However, there is need to incorporate web 3.0 metaverse technology e-commerce tools to provide personalise services internationally.

Latest E-Commerce Strategies to Enhance the Fashion E-Commerce of Pakistan

Globally countries are adopting different marketing and online sales strategies to increase the fan base, customer traffic, revenue and future growth. Most of the international brands have adopted and implemented many digital technologies to facilitate growth and stability (Mohsin, 2020).

3D Body Scanning Mobile Applications

Body scanning is esteemed as an imperative driver in developing solutions to body worn product development by fashion industry and selection by consumers. Mobile applications are a common source for e-shopping currently. Therefore, 3D Body scanning applications have been developed for Smart phones, tablets and laptops for consumers and retailers for full body scanning, scanning of various parts, virtual fitting room and for size and fit visualisation and recommendation. The

applications can measure parameters such as distances, girths, heights, width, surface area, body fat percentage, circumferences by identifying body landmarks (Idrees et al., 2020a). 3D look body scanning company has partnered with more than 100 retailers globally such as uniform industry Safariland and Fechheimer Brothers, a Berkshire Hathaway company. Previous consumer retailers of 3D look include Boost VC, 500 Startups, ICU Ventures, U Ventures (Edelson, 2021). Similarly, a New York based women denim brand 1822 Denim is famous for offering the best fitting jeans for all shapes and sizes. The denim brand has “disrupt traditional size chart and tape measurement method to avoid human error”. The brand has incorporated 3Dlook’s YourFit solution, with just two smart phone photos (full front and side view) which deliver personalise size recommendations and body dimensions to determine the size of consumers and for manufacturing personalise jeans. The brand is now providing range of products that fit women of all sizes and have increase customers confidence in buying custom-made denim products to drive sale growth (3Dlook, 2021). Moreover, by Julie Pelipas, a stylist has founded a fashion brand Bettter also connected with 3Dlook to incorporate virtually made-to-measure solutions. The clothing production falls into sustainability vein, which means no overproduction of products. She says “We really don’t want anyone to buy suits that won’t fit first” to Vogue (3Dlook, 2021). Mobile scanning applications can be used by Pakistani fashion retailers to enhance customisation of garments for online consumers.

Virtual Try-on

Virtual try-on facilitates the buyer with virtually trying on products through phone or any other electronic gadgets with a camera (Kim and Forsythe, 2008). Globally businesses are using this technology for the two major reasons: i) to reduce the uncertainty of choosing fashion product right size ii) cut back on returns. For instance, Asizer is a virtually try-on application aided with 3D Body scanning and clothes simulator technology. This application shows various brands clothing options to choose, and user can virtually try-on for personalise experience in online setting. The user has to capture full body image in any dress using mobile camera (Asizer, 2016). The triMirror a Canadian based company has also introduced virtual fitting technology which provide personalise trying-on experience. Additionally, by employing heat maps user can visualise either the garment is tight or loose and how fabric behaves when user move around in various ways before buying a garment (triMirror, 2021).

Augmented Reality

It has revolutionized the business sector and it is anticipated that by 2024 it will be a \$50 billion industry and over 120,000 stores would have implemented augmented reality (AR) technologies and will be offering their customers richer shopping experience by 2022 (Newswire, 2018 ; Carmigniani and Furht, 2011). Wedding couture Australian brand Suzanne Harward introduced mobile application

for Virtual view to showcase exclusive collections and to create real-life experiences. The technology has transformed bridal gown shopping into an unproblematic and alluring experience for brides. The innovative AR technology permits consumers to view wedding couture collection on “life-size models” conveniently at home, consequently offering a contented and interactive experience. To view intricate details, exclusive fabric by using zoom in option with 360-degree view to visualise the gown from all sides. This has enabled consumers to make a confident and informed decision, which is confirmed benefit for both consumers and retailers. This app is available on iOS and android (Harward, 2020; Bhageria, 2021). Asos has launched AR technology built with artificial intelligence. See My Fit model maps digitally, products on virtual model in a realistic way. Asos has introduced fit assistant in 2018, which uses machine learning to deliver personalise size recommendation for consumers. Virtual catwalk has been introduced to view models walk in a room. More than 150,000 ASOS customers tried ‘Virtual Catwalk’ using AR mobile application (Asos, 2018). Gap has launched augmented reality mobile app “TheDressingRoom”. The app enables buyer to virtually try-on garments on personalise avatar using augmented Reality which deliver real-time experience while at home shopping (Ochwat, 2017). The comprehensive discussion on web 3.0 metaverse tools have been reviewed in the Fig 1, to understand how technology can be utilised individually and with amalgamation of technologies for benefit of both consumers and retailers to enhance fashion e-commerce interfaces and online sales.

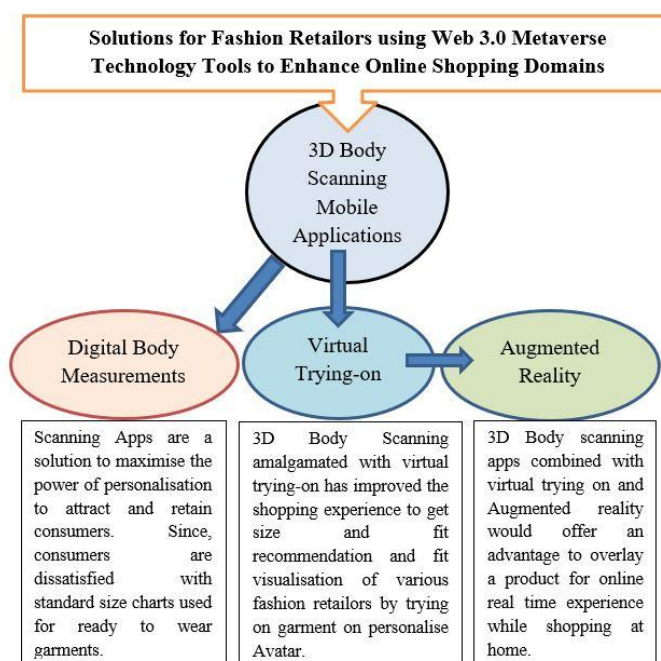


Fig 3 Web 3.0 Metaverse Technology E-commerce Tools

CONCLUSION

To improve sales online and to enhance luxury apparel e-commerce worldwide, there is a need to incorporate 3D Body scanning, Augmented Reality and Virtual Try-on Technology. The study reviewed that the luxury apparel products (unstitched & ready to wear) commonly bought by women of Pakistan and highly regarded due to its finesse and exclusiveness. Contemplating the cutthroat Pakistan fashion industry dynamics, fashion retailers are required to be distinct from their competitors for extensive endurance. The innovative web 3.0 technology adopted by International retailers emerge as unique way to reap customers' interest and loyalty (Idrees et al, 2020b). Luxury unstitched apparel product is mainly used for customisation of garments. Therefore, 3D Body scanning mobile apps are solution to provide online customisation services by getting digital measurements. Garments can be virtually try-on using personalise avatar combined with augmented reality before making an online purchase of luxury garments because substantial amount has been paid for a product. The examples of luxury international fashion retailers have provided confidence to incorporate web 3.0 metaverse fashion technology in e-commerce shopping domains of Pakistani luxury brands. Technological innovations have transformed the e-commerce environment to interactive environment and have positively affected the fashion Industry. Innovation in technology is a non-stop process, the need of the hour is to stay updated with global circumstances. The web 3.0 metaverse e-commerce technology permits time, place and purchasing advantages for fashion brands as well as entertainment is associated with it with the real-time experience online. The study offers a conceptual background for future research and the extension of knowledge on innovative approaches for application in fashion e-commerce environment. Besides, European, and worldwide fashion retailers would enrich their online businesses with examples of unstitched apparel product, which is a unique category in apparel market to enhance mass customisation combined with web 3.0 technology.

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A THEORETICAL MODEL FOR BUSINESS PERFORMANCE: THE ROLE OF TALENT, INNOVATIVENESS AND FLEXIBILITY

Kafetzopoulos, Dimitrios¹; Skalkos, Dimitrios²

¹Department of Business Administration, University of Macedonia, Thessaloniki, Greece.

²Department of Chemistry, University of Ioannina, Ioannina, Greece.

ABSTRACT

The purpose of this study is to build a theory presenting a conceptual model of relationships between talent development, innovativeness and strategic flexibility, and how these factors affect financial performance. As methodology approach, this study uses a rich combination of literature review and exploratory interviews with managers and academics followed by a synthesis of individual studies to ensure that all the important aspects in the field of talents, flexibility and innovativeness of firms were covered. Based on the above analysis, we have developed a structural model that provides insight into the talent development of firms and its influence on a firm's innovativeness, flexibility and performance, attempting to explore the relatively less explored area of talent development. The study contributes to literature developing a research conceptual framework on the above relationships, investigating and explaining both their correlations and dynamic nature. It is expected that this research will further motivate researchers to work in this area. The proposed management tool will be beneficial to practicing managers for identifying opportunities for financial performance improvement.

Keywords: Talent development, Innovativeness, Strategic flexibility, Financial performance

INTRODUCTION

Organizational innovativeness is a precondition for innovation which in turn contributes to business success (Auh and Menguc, 2005). Moreover, strategic flexibility is defined as a set of abilities that enable firms to lead or respond to changes (Sanchez, 1997), promoting the achievement of a company's competitive edge especially when the company is facing a turbulent environment (Guo and Cao, 2014). Nevertheless, there is a gap in understanding how firms can attain innovativeness and strategic flexibility. Researchers suggest that employees may represent a basic pillar for the development of innovativeness and strategic flexibility (Katou, 2021). Thus, the purpose of this study is to review and organize the literature, to build a theory and present a conceptual model for the role of talent development in supporting innovativeness and strategic flexibility that leads firms to financial performance.

Our understanding of these important issues is limited as little research has systematically examined the mechanisms by which talent development impacts financial performance through innovativeness and strategic flexibility. Businesses should have the ability to navigate changes and environmental uncertainty by developing different strategies and policies. In this context, innovativeness and strategic flexibility are the ability to handle changes and allow businesses to adapt to such conditions (Hamlin et al. 2012; Zhou and Wu, 2010).

In general, firms face a dynamic and fast-moving environment in which innovations are needed to respond to changes in customers' needs (Brooker et al., 2012). Therefore, it is important for businesses to have the necessary organisational possibilities and abilities to devise and implement promising innovations (Simpson et al., 2006). Maruska and Perry (2013) argued that talent development enhances employees' self-motivation and self-organization to create enduring value, helps employees to look at their career from a new perspective and helps to create an environment that welcomes innovative ideas and increases firm's flexibility. Research on talent development remains fragmented and underdeveloped, with no stable theoretical foundation (Collings et al., 2018). In this study, an in-depth analysis of gaps at various interfaces in talent development, innovativeness and strategic flexibility was carried out to ensure that all the important aspects in the field were covered.

The rest of the paper is organised as follows: in the next section the theoretical background is presented, followed by hypotheses development and the proposed conceptual model. The following section describes the methodology used in this study and finally the discussion – conclusions and future research are also presented.

THEORETICAL BACKGROUND

Talent development

Bhattacharyya (2014) defined talent as mental power and inherent potentiality, whereas Florida et al. (2010) equated talent to human capital which can be measured by educational attainment. Morton (2004) pointed out that an individual with good natural ability at any particular activity can be defined as a talent. Talented employees are distinguished from other employees by the capital they possess, which enables them to make a difference and add value to their organisations. Over the last two decades, global talent shortages have been intensified through rapid globalisation, digitalization of businesses and industries with technological advancements. The widely recognised importance of intangible resources in the knowledge economy has led to challenges such as the ability to strategically manage talent, and the scarcity of talent which has fuelled a strong interest in talent development (Aziz et al., 2016; Thite et al., 2014). Hicks (2008) defined talent development from an organisational perspective and argued that "the purpose of talent development function in

organizations is to develop the skills of the workforce to execute strategic priorities". According to Gagne (2007) talent development has demonstrated ability in any domain enabling any particular talent at the maximum level. Talent development focuses on the planning, selection and implementation of development strategies for the entire talent pool to ensure that the organisation has both current and future talent to meet strategic objectives and to develop activities aligned with organisational talent management processes (Garavan et al., 2012). As a newly emerging management area, talent development has become the latest trend in the field of people management (Wang and Sun, 2018). It is a key action that transforms people from factors of production into forces of contribution to sustainability; it is a valuable investment, highlighting its contribution to the firm's performance. The purpose of talent development in organisations is always related to achieving a combination of individual and organisational desired benefits (Bratton, 2018). As talent development draws the attention of organisations and professionals in the field, researchers in academia have started to focus on talent from a developmental perspective (e.g., Caplan, 2013). Kim and McLean (2012) arguing that the developmental focus of human resources is an important component of talent management, which has been increasingly emphasised in the human resource management literature (e.g., Collings and Mellahi, 2009). Most of the definitions consistently consider talent development, along with talent attraction and talent retention as the three dominant strategies or practices within talent management (Thunnissen et al., 2013).

Innovativeness

Organizational innovativeness is part of the systems that make them, a precondition for the successful implementation of an innovation (Siguaw et al., 2006). Auh and Menguc (2005) define innovativeness as "inclination for the organization to engage in innovative behaviour"; Calantone et al. (2003) specify it as a "firm's receptivity to new ideas and innovations"; and Hult et al. (2004) understand innovativeness as a "firm's capacity to engage in innovation; that is, the introduction of new processes, products, or ideas in the organization". Thus, innovativeness refers to an organisation's orientation to adopt products, processes, or organisational innovations (Tsai and Yang, 2013; Chryssochoidis, 2008; Hurley and Hult, 1998). It has been conceptualised mainly at the firm-level and refers to the propensity of a firm possesses to innovate (Story et al., 2015; Hult et al., 2004). Previous studies have conceptualised innovativeness as an organisational cultural trait, and also as capability (Tsai and Yang, 2013; Hult et al., 2004; Hurley and Hult, 1998). Moreover, it is also described as a collective action that coordinates the knowledge and expertise of employees to foster the invention of products, services, and processes (Story et al., 2015; Hult et al., 2004). In this sense, we refer to innovativeness as the architectural capability of a firm to explore new possibilities for improving processes and products and generate innovation (Shashi et al., 2019).

Strategic flexibility

Strategic flexibility can be defined '*an organisation's capability to identify major changes in the external environment, to quickly commit resources to new courses of action in response to change, and to recognise and act promptly when it is time to halt or reverse such resource commitments*' (Shimizu and Hitt, 2004).

Strategic flexibility is the capability of enterprises to respond to turbulent environments in time effectively (Sanchez, 1997). It is critical for firms' performance to understand how they should change in the light of environmental turbulence. Hitt et al. (1998) argue that the most important attribute that firms need to survive in a competitive context is strategic flexibility, and they define it as the firm's ability to anticipate and adapt rapidly to its environment and thus gain a competitive advantage.

Prior research demonstrates that an uncertain environment might cause stress and anxiety to organizational members (Ensley et al., 2001). In this context, strategic flexibility is considered an ability to handle these changes, allows businesses to adapt such conditions and leads the firm out of crisis (Hamlin et al. 2012; Zhou and Wu, 2010). Strategic flexibility depends jointly on resource flexibility and the company's flexibilities in applying those resources to alternative courses of action (coordination flexibility) (Li et al., 2011). Therefore, it should be viewed as dynamic capabilities that emphasise the flexible reconfiguration of resources (Zhou and Wu, 2010). In a dynamic environment, resources and capabilities are determinants of strategic flexibility. Specifically, strategic flexibility depends not only on the inherent flexibility of an organisation's resources, but also on the capability to be flexible in using these resources. Therefore, it is appropriate to describe strategic flexibility from the perspective of resources and capabilities. Strategic flexibility has been studied as an important area for both businesses and researchers, resulting in an increase in the number of publications (Brozovic, 2018).

Financial performance

Lönnqvist (2004) defined performance as the ability of the measurement object to achieve organisation's results in relation to goals. Performance is the ultimate measure of organisational outcomes, and is affected by many market contingencies and organisational conditions. Thus, several researchers in literature have proposed ways and tools to measure business performance using sub-dimensions such as financial performance and the achievement of financial and market-related objectives (Sousa and Voss, 2002). Financial performance is the degree to which an organization achieves economic outcomes (Hogan and Coote, 2014). The economic and financial results or those connected with innovation are the most difficult to be measured (Calvo-Mora et al., 2015). Indicators of business performance such as company sales growth, profitability, financial results and cash flow, are used in the present study drawn from previous studies of Kafetzopoulos and Psomas (2015) and Han et al. (2009).

HYPOTHESES DEVELOPMENT

It is widely accepted in literature that an enterprise's capability to innovate is closely tied to its human capital (e.g. Tomsic et al., 2015) and especially to its talent development. As opined by Kuchеров and Zavyalova (2012), managers and leaders of successful organizations depend on the deployment of talent to achieve their business innovation goals. The talent management systems in firms are known for their ability to position the firm as strong employer brand that has choice in employee acquisition based on their value proposition (Tatoglu et al., 2016; Morley et al., 2015). Most new products and business models are characterized with short life cycle, thus creating a demand for continuous innovation in the firms. Maruska and Perry (2013) argued that, from employee perspective, talent development enhances employees' self-motivation and self-organization to create enduring value, to help employees to look at their career from a new perspective and to help create an environment that welcomes innovative ideas. Bozbura et al. (2007) argue that effective administration of talents sets up enormous potential for value creation in the enterprise, and therefore directly affects innovativeness. Leiponen (2005) points out that talents' skills can be seen as an enabling factor in profitable innovation. Moreover, Tomsic et al. (2015) show that human capital has a positive association with the innovativeness and Mayfield et al. (2016) propose that talent development pillars can be monitored to serve as a feedback loop for effective organizational innovation and change. Furthermore, Ibrahim and Al Omari (2020) examine the link between talent management, including talent development, and innovativeness. They conclude that talent management had a significant and positive impact on all innovation dimensions. Hence, the following hypothesis is proposed:

Hypothesis 1. Talent development has a positive association with the innovativeness

Talent and talent management concepts have been quite popular since the early 90s, together with the famous article 'The war for talent' by McKinsey & Co consultants (Chambers et al. 1998). The concept of 'the war for talent' referred to the situation where employers compete with each other to recruit and retain valuable employees. Talented employees have the strategic capabilities that can increase the productivity, efficiency, flexibility and competitive advantage of organizations in various industries (Khilji et al. 2015). Rapid and extensive automation of business processes together with emergence of novel business models impose new skill requirements for workforce that lead to firms' strategic flexibility. Training and development are an especially vital human resource function for implementing a top leader's strategic change plan (Speculand, 2006). Today's changing nature of business environment leads to a wider range of skill requirements for workforce. Consequently, the roles of employees will change in terms of content and work processes, and these changes would require significant transformations in jobs and skill profiles of employees (Karacay, 2018). For that reason, talent development of a company should be positioned as a strategic level decision, and need

to be aligned with company's overall strategy together with all strategic business processes in order to increase strategic flexibility (Karacay, 2018). Developing employee skills results in significant benefits for any organization (Grant et al., 2014; van Zyl, 2013). The major benefits of talent development include successful achievement of business strategy, and competitive advantage and revenue as it supports employee competencies and workforce planning (Pruis, 2011). Boudreau and Ramstad (2005) identified talents and sustainability through organizational effectiveness, and revealed that developing a pivot talent pool could contribute to the strategic flexibility success of an organization. Talent development will directly affect the organization's processes and will have a direct effect on the enterprise flexibility. Based on the above, we hypothesise:

Hypothesis 2: Talent development has a positive association with strategic flexibility

The idea that strategic flexibility is an important driver of different types of innovation has received substantial empirical support (Miroshnychenko, et al., 2021). Many studies show that strategic flexibility supports new product development (Kandemir and Acur, 2012), radical innovation (Medina et al., 2006), innovation performance (Cingöza and Akdoğan, 2013; Fan et al., 2013), and explorative innovation types (Zhou and Wu, 2010). Strategic flexibility can enhance innovativeness through various ways (Garriga et al., 2013). From the resource perspective, firms with strategic flexibility access to human resources with various professional skills who are able to propose new thoughts and state of the art solution or to employ new technologies in work processes and, in such a way, they can improve innovation performance (Wei et al., 2014). Thus, strategic flexibility, as the ability to adapt quickly to the changing environment, is a major source of competitive advantage by overcoming organizational routines and fostering innovation (Hitt et al., 1998; Zhou and Wu, 2010). Previous literature has also suggested that strategic flexibility positively affects innovation models. Coordinate flexibility can alleviate the organizational routine inertia, which helps the firm to break down its institutionalized business model processes and explore new alternatives (Wei et al., 2014). Therefore, as a dynamic management capability process, strategic flexibility enables a firm to identify and orchestrate the necessary resources for designing and innovating the business model (Teece, 2010). Moreover, according to Brozovic (2018), strategic flexibility can initiate possibilities for creating new markets and enabling innovation activities in a firm. The potential absorptive capacity for developing explorative innovation is higher in a strategically flexible organizational culture, which induces innovativeness (Zhou and Wu 2010). Authors have noted also increased innovativeness (Fan et al. 2013; Li et al. 2008) and a positive influence on entrepreneurial orientation (Arief et al. 2013). Hence, building on these arguments and the empirical evidence on the role of strategic flexibility for innovation, we postulate:

Hypothesis 3. Strategic flexibility has a positive association with innovativeness.

The impact of innovativeness on firm financial performance has been a matter of significant interest to economists and policy makers for decades. Innovation is actually one of the most important dynamics that enables companies to achieve a high level of competitiveness both in the national and international market (Saunila, 2016). The researcher argued that innovativeness is characterized by significant improvements to existing products or processes providing better financial results than other entrepreneurial activities (Harel et al., 2021). Innovative firms are capable of tapping markets for labour and capital to bring potential innovations to fruition (Tellis et al., 2009). In other words, firm innovation stimulates innovative behaviors that may yield new products, services, or processes (Dibrell et al., 2011; Hurley and Hult, 1998). In particular, firm innovativeness facilitates new product development (NPD) and thus improves NPD program performance (Calantone et al., 2003) and new product success which contributes to firm financial performance. New products or services may increase sales because they have better performance (e.g. reliability or durability), better features (e.g. integrated facilities) and other benefits compared to the existing products offered by competitors (Xin et al., 2010). Moreover, firms characterized by a spirit of innovation can attract creative employees and help them improve their productivity and reduce their turnover, which in turn can lower company costs and strengthen market and financial performance (Kyrgidou and Spyropoulou, 2013). Firms with high innovativeness may achieve better performance than firms with low innovativeness (Tsai and Yang, 2013). Therefore, this study presents the following hypothesis:

Hypothesis 4. Innovativeness has a positive association with financial performance

The review of literature on strategic flexibility outcomes shows that most of the previous literature in the field considers the positive relationships between strategic flexibility and superior performance (Brozovic, 2016). Specifically, in terms of financial performance; the higher the level of strategic flexibility, the higher a firm's financial performance (Brozovic, 2018; Das and Elango, 1995). This is confirmed by empirical studies (e.g. Verdu-Jover et al. 2014) and indicated by many other sources (Chen et al. 2015; Hitt et al. 1998), although occasionally with some limitations. With the rapidly changing technology innovation and globalization, strategic flexibility is viewed as the organization's key factor to achieve competitive advantage in the twenty-first century (Hitt et al., 1998). It provides many advantages to businesses as it enables firms to achieve superior financial performance in dynamic and competitive business environment (Nadkarni and Herrmann, 2010). Flexible firms can realize different strategic actions in the competitive arena that enables them to obtain sustainable competitive advantage by making businesses to become more proactive. Proactive firms can analyse their environment and determine the external opportunities and threats better than other firms (Cingöz and Akdoğan, 2013). Strategic flexibility, when applied, holistically helps firms to sense environmental changes that may occur (Grewal and Tansuhaj, 2001), get the better of organizational

inactiveness (Zhou and Wu, 2010), reapportion vital prerequisite and resources needed, and bring on creativeness as well as innovative attributes (Hitt et al., 1998; Li et al., 2010). It is also better looking as it helps searching for fresh business chances (Bock et al., 2012). For these reasons, strategic flexibility is regarded as a key element to the firm's efficiency and financial performance (Wadstrom, 2019). Harrigan (2001) explains that flexible firms will obtain better results, as they are better prepared to confront uncertainty. He therefore understands strategic flexibility as firms' ability to reposition themselves in the market, to change their plans or dismantle their current strategies. Therefore:

Hypothesis 5: Strategic flexibility has a positive association with financial performance

In summary, our analysis of the talent development, innovativeness, strategic flexibility, and financial performance has led to the structural model illustrated in Fig. 1. The empirical validation of the proposed structural model will provide interesting insights into how talent development explains the achievement of financial performance through innovativeness and strategic flexibility of a company. The model reflects a key philosophy of management that the entire organization is a system of interlocking processes (Soltani et al., 2003).

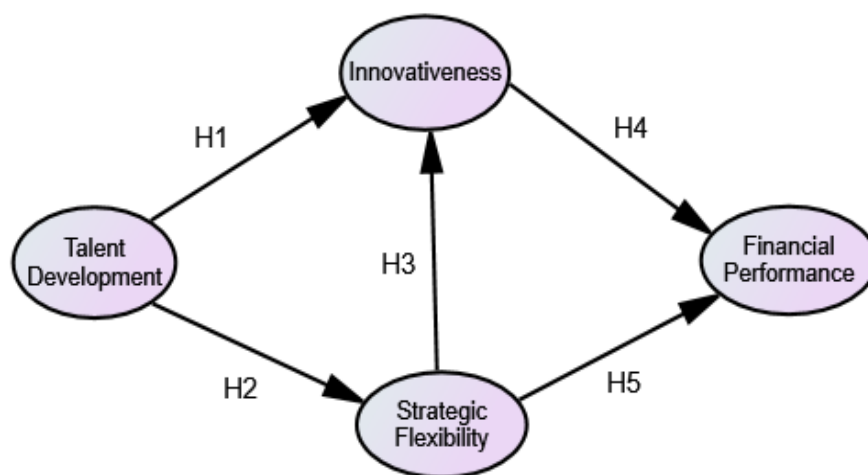


Figure 1. Hypotheses and conceptual model to be tested

METHODOLOGY

A rich combination of extensive literature review and exploratory interviews with managers and academics was carried out in order to ensure that all the important aspects in the field of talents, innovativeness, strategic flexibility and financial performance were covered. For the model developed in this study, the literature review was based mainly on the existing research instruments, the talent management and flexibility frameworks, and the different types of innovation published by

practitioners and academics in the field and the various research instruments on organizational performance. This was followed by an in-depth analysis of gaps at various interfaces in human recourse management and innovation.

DISCUSSION - CONCLUSION

Talent development, innovativeness and strategic flexibility has received significant attention from academics and practitioners all over the world, providing interesting business insights (Brozovic, 2018; Tatoglu et al., 2016; Morley et al., 2015). Human resource and talent researchers have been working for some time on the theoretical development of models but there has been little work done to specifically identify how talent development might influence a firm's innovativeness and flexibility in an uncertain external environment. The proposed model is based on a comprehensive literature research and the qualitative data are generated through series of discussions with academics and professionals at various levels. This study is a first attempt and constitutes a starting point for exploring the relationship between talent development, innovativeness, strategic flexibility and financial performance, giving directions to companies to enable them to distinguish themselves from their competitors. The development and investigation of the proposed relationships could offer a close examination and better understanding of these relationships contributing to the theoretical development of talent management in firms and narrowing the corresponding literature gap. Business environment which is highly uncertain due to high intension, instability and fast changes, impel firms to invest in strategic flexibility and innovativeness directly providing the background and time needed to remunerate the firm with an increase in financial performance. To our knowledge, this is the first study that suggests specific paths for developing and applying these dimensions towards increased financial performance.

Implications

This study introduces three factors providing a much richer and more complex picture of what can drive a firm to performance. Its findings can be used by firms offering clear practical implications for managers who desire to choose strategies and allocate resources in order to improve their company's innovativeness and performance. From a theoretical perspective, it promotes talent development as one of the most important constructs and theory of our time in organisation and management research. The proposed model of this study builds on existing theory concerning the importance of talent development for the encouragement of innovativeness and strategic flexibility in companies in order to lead them to restructuring and growth. It contributes to a better understanding of which strategy is an important major driving force behind innovativeness and financial performance and

whether this should be developed and executed as an integral part of business strategy or not. The approach to the variety of constructs is sufficient enough to depict the different firms' strategies within different business sectors. The proposed model, which we have developed in this paper, will be useful for academics and practitioners interested in understanding the determinants of innovativeness and financial performance and the specificity to the firm or to the sector in which they operate.

Future research

In our view, the suggested conceptual model and its corresponding propositions imply a rich agenda for future research. This model can be examined by identifying performance measurement indicators for all involved factors. Many empirical studies could investigate how firm talent development form the driver to innovativeness and the propensity and intensity of strategic flexibility at a company, explaining also their role in financial performance. To assess this, empirical studies testing and elaborating the proposed framework in this paper are needed. Many theoretical as well as empirical studies could investigate the role of key factors of the proposed model in different sectors or populations. Moreover, the role of environmental characteristic could be examined as a moderator in the proposed relationships.

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MEDIA PRESENTATION OF DISTANCE LEARNING USING THE EXAMPLE OF THE REPUBLIC OF CROATIA IN 2020 AND 2021

Kalajžić, Vesna; Ražnjević Zdrilić, Marijana; Miočić, Bernard

Department of Tourism and Communication Studies, University of Zadar, Zadar, Croatia

ABSTRACT

Distance learning in Croatia has intensified with the onset of COVID-19 caused by the coronavirus. As in other countries of the world, Croatia had to accept the challenge of adapting the educational process by organizing and implementing online classes. The Ministry of Science and Education has issued instructions and guidelines for the implementation of online classes which was, despite certain difficulties, relatively successful. The aim of this paper is to present the media portrayal of online classes according to the three most widely read Croatian portals: index.hr, 24sata.hr, and jutarnji.hr, according to the Media digital report from 2020. The key words for the corpus search were: online classes, online learning, and distance learning. The research period encompassed a period from February 25th, 2020 to April 25th, 2020, and from February 25th, 2021 to April 25th, 2021 with the aim of comparing these years in the presentation of the media portrayal with regard to the representation of topics, journalistic approach, geographic focus, portrayal/attitude on online classes, and the extent to which online classes have been covered in the media. The paper uses the method of content analysis. The research results showed, among other things, a larger number of articles in 2020 on this topic, the most common topic of conducting online classes, and information on online classes/learning, the dominant informative journalistic approach in both years, the geographic focus on Croatia, as well as the most common neutral attitude towards online classes/learning in both 2020 and 2021.

Keywords: online learning, distance learning, online classes, Internet portals, content analysis, Croatia

INTRODUCTION

The aim of this paper is to show how Croatia's most widely read internet portal followed one of the most significant educational challenges during the pandemic- distance learning. The purpose of this paper is to compare the media image of distance learning from the first case of coronavirus infection in the Republic of Croatia in 2020 with the same period in 2021.

Distance learning has a two-century long history. From that time to the present day, various forms of communication and information flow have been used in teaching, from simple correspondence by

mail to various tools available on the Internet (Jukić, 2017: 93). In the beginning, distance learning was intended for the education of adults who, due to the scarcity of their own resources, could not attend regular school classes or access educational content (Katavić et al. 2018: 96).

The first form of distance learning that was developed was focused on the press, which formed the basis of correspondence courses. This form was based on the technology of books and print: written text and various photographs, diagrams, drawings, graphics, maps etc. (Peraya, 2006: 202). A new era began in the 1960s – the era of multimedia – which was characterized by the use of various types of media (print, radio, television, video), which complement one another and are harmonized for the purposes of achieving the educational (teaching) goal. Even though educational shows began to be broadcast in the United States as early as in the first half of the 20th century (in around 1920 via radio, and in 1950 via television), they did not become standard components of distance learning until the 1970s, when cable TV became widespread. At that time, audio conferences started becoming increasingly popular in numerous colleges (Deprover et al., 2003: 10). In the late 1980s, advances in personal computers and telecommunications enabled further transformation of distance learning. Technology has enabled student's interaction with the teacher and other students through video conferences, e-mails, forums, as well as the use of online educational resources, online self-assessments etc. Therefore, today the term *distance learning* implies relying on Internet connections (Matijević and Topolovčan, 2017 in Runtić and Kavelj, 2020: 151). With the development of telecommunications and the Internet, a new era has begun, in which a unique environment has emerged – an environment which integrates various information and communication functions (synchronous or asynchronous), collaboration, management, and learning (Peraya, 2003: 9). Therefore, today, distance learning is associated with online learning, which is defined as the experience of learning in a synchronous or asynchronous environment using various devices (e.g. mobile phones, laptops etc.) with Internet access whereby students and teachers can be anywhere (Singh and Thurman, 2019, according to Dhawan, 2020: 7).

The emergence of new technologies in the educational context has always been primarily aimed at improving certain aspects of distance learning, or facilitating access to classes. It happened with radio, telephone, television, satellites. Although each new piece of technology had the potential to revolutionize education and create new opportunities to improve the quality of the classes and increase the productivity of the learning process, research very quickly showed that the expectations of those involved were too high. The hostile or negative attitude of teachers is most often cited as one of the main causes of failure. The same was true with the appearance of personal computers and the Internet. At the time, the promoters of new technologies in education predicted a thorough revolution of the education system, cost reduction and improvement of quality and access. Approximately thirty

years later, traditional classes in schools and universities have not disappeared. The development of distance learning was much slower than expected. It did not evolve as they had hoped.

The occurrence and announcement of the COVID-19 outbreak in March 2020 prompted accelerated experimentation with new approaches and teaching methods in numerous countries around the world. To prevent the spread of the virus, 188 countries closed their schools (Basilaia and Kvavadze, 2020 in Ćurković et al., 2020: 6). The world has abruptly turned to online education, in which classes are mostly distance-based through online platforms. This sudden transition to online classes, without prior technical and pedagogical preparation, turned the education system upside down, facing the challenge of adapting quickly to the new situation and challenges.

The commencement of distance learning in Croatia is connected with the Homeland War. Croatian Radiotelevision (HRT) organized special educational programs (War Radio School and War TV School) due to children not being able to attend regular schools during wartime. The program was broadcast on the radio twice a day from October 1991 to September 1992. In the morning, the program included teaching units for students from the fifth to the eighth grade of elementary school, and in the afternoon for students from the first to the fourth grade. Summarized in short radiophonic units, the children would study the Croatian language, mathematics, history, physics, geography, chemistry, and biology on a daily basis. Within the *War TV school* (November 1991 – June 1992), 546 shows were broadcast. Parents, teachers, and students could ask questions over the phone, and the program presenters and/or editors would answer them (Galić, 2016: 446).

Distance learning in higher education in the Republic of Croatia has a shorter history (Katavić, 2018: 97). The National Council for Higher Education did not define the basic criteria for conducting online studies until 2013. Online study was considered to be one in which at least 50% of subjects and teaching hours are conducted online. In online studies, students could only have a part-time status (National Council for Higher Education, 2013: 2). Thanks to a faster and easier possibility of adjustments, private higher education institutions (mostly in the field of social sciences) were the first to implement online studies (Štekl, 2020: 171).

In Croatia, distance learning gained full and widespread practical application at the time of the COVID-19 pandemic. The Ministry of Science and Education (MoES) started with the preparations in early March of 2020. The concept of online classes was developed and agreed upon, and the production of digital content (video lectures and TV program) began immediately. With the appearance of the first infected persons, the Croatian authorities took the necessary precautions to curb the spread of the virus. In this context, at the session of the Government of the Republic of Croatia held on March 13th, 2020, it was decided to suspend teaching activities from March 16th, 2020

until further notice in all educational institutions throughout the country, and to establish distance learning, which forced all schools in the Republic of Croatia to quickly adapt to the new situation.

With the aim of establishing the free flow of information, on March 11th, 2020, the Ministry of Science and Education (2020a) issued the guidelines for the organization of classes. The school headmasters were to sign into a virtual classroom on Loomen to exchange information with the Ministry of Science and Education regarding the organization of classes, and to organize a virtual teacher's lounge to which all teaching staff and associate professors of the school will have access. Each classmaster, in both primary and secondary school, had to establish a virtual class in one of the systems for cooperation and communication (Teams, Yammer, Moodle etc.), to which everyone related to that class had access. Classmasters were suggested to create virtual groups on communication platforms such as Viber, WhatsApp, Facebook etc. in order to connect with the students' parents. In the additional guidance of March 13th, 2020 of the Ministry of Science and Education (2020b), there are details related to the delivery of educational content, as well as monitoring and support.

Since it was not to be expected that students from the 1st to the 4th grade would be able to use digital devices independently, the MoES, in cooperation with the HRT, organized the broadcasting of classes and educational content for distance learning on the HRT 3 channel (*School on the Third Channel*). Educational content was available through the YouTube channel, as well as through the HRTi service. Numerous teachers participated in the realization of the classes. With regard to physical education and health, famous Croatian athletes recorded short lessons (Ministry of Science and Education, 2020c). Monitoring of the *School on the Third Channel* for the hearing-impaired students was provided on the Facebook page of the *Croatian Association of Sign Language Interpreters for the Deaf*. The interpreting was done live, and the content was available even after the program ended. Video lectures lasting 15 minutes per subject were created for elementary school students in the higher grades (V – VIII), and high school students. Classes for the higher grades of primary school were broadcast on *Sports Television*, and for high school students, they were broadcast on the RTL 2 channel. Video lectures were broadcast for high school graduates on Saturday mornings in order to prepare for the mandatory state high school graduation exams.

In the first month of distance learning, the HRT broadcast approximately 100 hours of recorded material for elementary school students in lower grades. In the first four weeks, more than 1,200 video lessons were broadcast on all TV channels for all subjects. By the end of the school year, their number had tripled. All educational materials were free of charge, and available to everyone. Even though higher education institutions were also given instructions for conducting distance learning, and in order to respect the autonomy of universities and other higher education institutions, the MoES did not make decisions on distance learning in the same way as it did for elementary schools and high

schools, and they autonomously decided how to conduct their classes in practice. In order to conduct distance learning, higher education institutions mainly used the Merlin e-learning system, or had their own systems at their disposal. They also used additional online platforms, which were free of charge, such as: Microsoft Teams, Zoom, Webex, Big Blue Button, Skype, YouTube etc. (Ministry of Science and Education, 2020d).

With the improvement of the *epidemiological situation* and the easing of measures, in mid-May of 2020, lower-grade elementary school students returned to school, while others (higher-grade elementary school students and high school students) continued with the distance learning model. *School on the Third Channel* stopped broadcasting on June 5th, 2020, as all compulsory material was covered. Teaching materials were still available. Students were allowed to return to regular forms of teaching with regard to the practical, laboratory, clinical, and art-related seminars (Ministry of Science and Education, 2020c).

Since it was difficult to predict what could happen next, and given the announcements of experts regarding the “second wave” of the pandemic for the school year 2020/2021, three scenarios, i.e. three teaching models, were developed. The first A model envisioned classes at school for all children, and the second mixed form of teaching (B model) implied that not all students would be able to be at school at the same time due to the epidemiological situation. Within this model, for lower-grade elementary school students, classes would be held at school while maintaining the maximum possible physical distance, while higher-grade elementary school students and high school students would attend classes so that one group would attend the lessons in person, and the others remotely. The third C model of distance learning implies that all students attend the classes remotely. The implementation of an individual model would depend on epidemiological measures and the situation at a local level, except in the case of the introduction of quarantine, or restrictive measures (lockdown) at the state level, which is when one model would be applied to the entire country (Ministry of Science and Education, 2020e: 14).

LITERATURE REVIEW

Research and literature related to distance learning have increased significantly in recent years. Various aspects of distance learning have been studied – from technology and pedagogical methods to the perception, opinions, and attitudes of students and teachers. Although traditional classes are still an irreplaceable form in the knowledge transfer, its “remote” variant has given rise to numerous advantages, as well as disadvantages. Previous research has shown the following positive effects of distance learning: independent learning rhythm, classes that are interesting and fun, and the possibility of longer periods of sleep (Runtić and Kavelj, 2020: 165), quizzes as new self-assessment

models (Tonković et al., 2020: 124; Runtić and Kavelj, 2020: 165), greater accessibility to learning (Mujić, 2007 in Tonković et al., 2020: 124), easy, and quick share of teaching materials (Yaghoubi et al., 2008: 92), easier management of teaching materials (Mihaljević, 2016: 25), financial cost-effectiveness/lower costs (Jukić 2017: 94), greater creativity (Tonković et al., 2020: 123), and temporal and spatial flexibility for learning (Tonković et al., 2020: 124; Yaghoubi et al., 2008: 92).

In addition to the above-stated *upsides*, the *downsides* have also been identified: lack of direct contact between the participants, and the prerequisite of having appropriate equipment at one's disposal (Kalamković, Halaši and Kalamković, 2013: 253), lack of interaction between teachers and students, longer preparation time (Runtić and Kavelj, 2020: 166), differences in teaching methods (Gökbulut, 2020: 148), a high percentage of dropouts from this form of education, a high degree of student activity and self-discipline in learning (Zenović and Bagarić, 2014: 381), feelings of loneliness and social isolation (Tonković et al., 2020: 124; Jukić, 2017: 95), lack of motivation (Jukić 2017: 95) as a consequence of social isolation, inadequate technical infrastructure (Runtić and Kavelj, 2020: 166), or technical difficulties such as sound issues, camera malfunctions, issues with registrations in the system and inadequate interaction with others due to defective equipment (McBrien et al., 2009: 10; Babić et al., 2017), poor Internet connection or inability to access the Internet (Runtić and Kavelj, 2020: 166), overwhelming number of tasks, inability to meet friends, difficulties in understanding educational materials, and lack of explanations and teaching with regard to individual teachers (Runtić and Kavelj, 2020: 166).

Previous studies and research on distance learning most often deal with the comparison between traditional and distance learning, and are focused on the basic questions of whether distance learning is as beneficial as traditional methods. This issue is considered primarily from the technical-technological and pedagogical-organizational point of view. In the circumstances of sudden changes and challenges in the process of care and education caused by the COVID-19 pandemic, research concerning the issue of distance education is the primary area of interest of many researchers. One of the media's basic duties is constantly educating people about serious matters such as education. Such themes, according to D. Labaš and L. Ciboci (2010: 344) are poorly and insufficiently represented in the media.

A recent study M. Kuzelj and K. Šamija (2020: 948) found that, when it comes to distance learning, most of the observed news portals' reporting during the first wave was inadequate and one-sided, and that it was dominated by value-neutral and negative interpretive framework due to the lack of knowledge on the subject.

Given that the media are particularly important for shaping public opinion and have a significant impact on the public perception of various topics, we wanted to contribute with our research of media coverage concerning the impact of coronavirus on society, specifically on education, and determine whether there has been any change when it comes to informing the public, keeping in mind the geographic focus of the topic, the topic itself, the journalistic approach, and the media portrayal, i.e. attitude.

METHODOLOGY

The aim of this paper is to present the media portrayal of online classes according to the three most widely read Croatian portals: *index.hr*, *24sata.hr*, and *jutarnji.hr*, according to the *Media digital report* from 2020. The corpus was selected with regard to the article searches on the said Internet portals according to the key words: online classes, distance learning, and online learning. Selected articles were published in the research period from February 25th, 2020 to April 25th, 2020, and from February 25th, 2021 to April 25th, 2021. Namely, on February 25th, the first case of the coronavirus infection was recorded in Croatia, and on March 13th, 2020, a decision was made to switch from in-person education to online classes. Considering that the preliminary research showed that online classes were written about even prior to the decision regarding online classes, we decided to start the research period on February 25th, 2020, i.e. from the occurrence of the first case in the Republic of Croatia. With said research periods, we wanted to present a media portrayal of the topic of online classes/learning since the first case of coronavirus and the following two months, and a year later (in the same periods) we wanted to compare the extent to which online classes/learning was covered, which topics were represented, which journalistic approach prevailed, the geographic focus, and which portrayal/attitude concerning online classes was prominent – positive, negative, and neutral. Content analysis was applied in the paper.

With regard to the geographic focus, we classified the articles into those that dealt with the topic at the national level, and articles that referred to Croatia, but which dealt with the topic of certain parts of the country – Croatia locally. Given that coronavirus is spread across the world, we decided to include neighboring countries, Europe, and the world in the geographic focus in order to obtain a wider picture of media coverage of online learning/classes during the pandemic from the perspective of the most widely read online portals in Croatia. For the purposes of content analysis, a coded matrix in MS Excel was created, which was used for quantitative content analysis and data processing with descriptive statistics. Considering the media portrayal of each article, i.e. the underlying attitude, three options were defined: positive, negative, and neutral. Criterion for the positive assessment: positive in relation to the research topic, online learning/classes (for instance, positive results of the online classes

evaluation, students' positive experiences); criterion for the negative assessment: negative in relation to the research topic (negative impact of online classes on children's health, unfavorable technical conditions for online classes), criterion for the neutral assessment: neutral in relation to the topic of online learning and online classes (for instance, information on conducting online classes and their organization, recommendations of competent authorities). We wanted to explore the way the authors approach the topic, therefore we identified three possibilities: informative (we listed all journalistic genres whose primary goal is to inform the public), analytical and critical (we listed journalistic genres in which authors are more deeply involved in the topic, which they address in an analytical and/or critical way), and promotional articles (which specifically promote events and products within the research topic).

RESEARCH RESULTS

The research period is divided into two parts: from February 25th, 2020 to March 25th, 2020 and from February 25th, 2021 to March 25th, 2021. According to the *Media digital report* from 2020, the three most widely read online portals in Croatia were: *index.hr*, *24sata.hr*, and *jutarnji.hr*. The research period was taken into account with respect to the day of the first coronavirus case in Croatia, and covers two months in 2020 and two months in 2021 (the same period), in order to make a comparison between the two. Table 1 shows the number of articles by online portals and years. In 2020, the largest number of articles on online classes/learning was published on *index.hr* (50.36%), followed by *24sata.hr* (26.28%), and *jutarnji.hr* (23.36%). In 2021, *index.hr* published 61.62% of articles, *24sata.hr* published 20.20%, and *jutarnji.hr* 18.18%.

Portal	2020	%	2021	%	Total	%
24sata.hr	36	26.28	20	20.20	56	23.73
index.hr	69	50.36	61	61.62	130	55.08
jutarnji.hr	32	23.36	18	18.18	50	21.19
Total	137	100.00	99	100.00	236	100.00

Table 1. Number of articles by online portals in 2020 and 2021

Overall, keeping in mind the entire analyzed corpus in both years, *index.hr* published the largest number of articles (55.08%), followed by *24sata.hr* (23.73%), and *jutarnji.hr* (21.19%). By comparing the number of articles published in 2020 and 2021, it is visible that a larger number of articles was published in 2020 compared to 2021, which could be explained by the fact that the pandemic has spread throughout the entire world and changed all of our lives. All activities within the society, including education and learning, faced an unknown challenge, which, among other things, encouraged journalists to inform the public more about this issue. In 2021, we faced the second wave

of coronavirus, which is why we had a strong foundation, and previous experiences have contributed to easier navigation of the organization and implementation of online classes.

Geo focus	2020	%	2021	%	total	%
Europe	9	6.57	10	10.10	19	8.05
Croatia	114	83.21	47	47.47	160	67.80
Croatia – locally	6	4.38	32	32.32	38	16.10
Neighboring countries	1	0.73	5	5.05	6	2.54
World	7	5.11	5	5.05	12	5.08
Total	137	100.00	99	100.00	236	100.00

Table 2. Geographic focus of articles in 2020 and 2021

In 2020, out of the total number of articles published on index.hr, 24sata.hr, and jutarnji.hr, taking into account the geographic focus, the largest number of articles referred to Croatia (83.21%), followed by Europe (6.57%), the world (5.11%), Croatia – locally (4.38%), and only one article referred to the neighboring countries (0.73%). In 2021, the largest number of articles referred to Croatia (47.47%), followed by Croatia – locally (32.32%), Europe (10.10%), and neighboring countries and the world (5.05%).

Table 2 shows the representation of the topic by years (2020 and 2021). In 2020, the most written about topic was the conduction of online classes/learning (51.82%), followed by information on online classes/learning (18.25%), the experience of online classes/learning (10.95%), online classes/learning and technical requirements (10.95%), other topics related to online learning and classes (5.84%), and the least on the topic of online classes/learning and health (2.19%). The category “Other” refers to articles that appeared less than five (5) times, which was not enough for a dedicated topic. In 2021, the largest number of articles referred to informing on online classes/learning (76.77%), followed by conduction of online classes/learning (7.07%), experience of online classes/learning and online classes/learning and health (6.06% respectively), other (3.03%), and online classes/learning and technical conditions (1.01%). Overall, the most represented topic was information on online classes/learning (42.80%), followed by conduction of online classes/learning (33.05%), online classes/learning experience (8.90%), online classes/learning and technical conditions (6.78 %), other (4.66%), and online classes/learning and health (3.81%). Comparing the research period, a significant difference was noticed within the share of articles on the topic of the conduction of online classes/learning in 2020/2021. The topic of the conduction of online classes/learning was represented by 53.33% in 2020, and in 2021 by only 6.38%. This does not surprise since during 2020 and the beginning of 2021, various solutions, opportunities, and improvements were put in place, as well as various forms of online classes/distance learning. This goes in favor of the increased number of articles on informing about online classes/learning in 2021 since the media served as one of the most

important intermediaries for citizens during the pandemic. Articles on online classes/learning and technical conditions were more represented in 2020, which can be explained by the fact that, at the beginning of the implementation of online classes/distance learning, it was necessary to establish technical conditions, development of information and communication technologies, or computer equipment without the help of which it was not even possible to conduct online classes/learning.

Topics	2020	%	2021	%	Total	%
Info on online classes/learning	25	18.25	76	76.77	101	42.80
Online classes experiences	15	10.95	6	6.06	21	8.90
Implementation of online classes/learning	71	51.82	7	7.07	78	33.05
Online and health	3	2.19	6	6.06	9	3.81
Online classes/learning and technical requirements	15	10.95	1	1.01	16	6.78
Other	8	5.84	3	3.03	11	4.66
Total	137	100.00	99	100.00	236	100.00

Table 3. Comparison of topics on online classes/learning in 2020 and 2021

Table 3 shows the number of articles with regard to the author's approach to the research topic. In 2020, the largest number of articles was informative, or 87.59%, and in 2021 that number accounted for 89.90%, which is a slight increase compared to the previous research year. In informative articles, the most common topic in 2020 was the implementation of online classes (53.33%), and information on online classes/learning (20.83%), and in 2021 the most common topic was information on online classes/learning as well (82.02%), and online classes/learning experiences (6.74%). This is followed by articles of analytical and critical nature with 7.30% in 2020, and 6.06% in 2021, which is a slight decrease compared to the same period last year. Considering the topic, the largest number of articles of analytical and critical nature in 2020 referred to the experiences of online classes/learning (40.00%), followed by conduction of online classes/learning, and other (30.00%). In 2021, the most common topics of analytical and critical articles referred to conduction of online classes/learning and online classes/learning and health with 33.33%. The smallest number of articles was of promotional nature; in 2020, their share in the total corpus was 5.11%, and in 2021 it was 4.04%. In 2020, the largest part of promotional articles referred to the topic of online classes/learning (57.14%), and in 2021 to information on online classes/learning (75.00%), and other topics (25.00%). Out of the total number of articles in the research corpus, 88.56 articles were of informative nature, 6.78% were analytical and critical, and 4.66% were promotional. Overall, the most common topic in the entire corpus of analytical and critical character was the conduction of online classes/learning (31.25%); in articles of informative nature, the most widely discussed topic was information on online classes/learning (46.89%); in articles of promotional nature, the most common topic was the conduction of online classes (36.36%).

JOURNALISTIC APPROACH	2020	%	2021	%	Total	%
Topics						
Analytical/critical	10	7.30	6	6.06	16	6.78
Online classes experiences	4	40.00	0	0.00	4	25.00
Implementation of online classes/learning	3	30.00	2	33.33	5	31.25
Online and health	1	10.00	2	33.33	3	18.75
Online classes/learning and technical	0	0.00	1	16.67	1	6.25
Other	2	20.00	1	16.67	3	18.75
Informative	120	87.59	89	89.90	209	88.56
Info on online classes/learning	25	20.83	73	82.02	98	46.89
Online classes experiences	11	9.17	6	6.74	17	8.13
Implementation of online classes/learning	64	53.33	5	5.62	69	33.01
Online and health	2	1.67	4	4.49	6	2.87
Online classes/learning and technical	14	11.67	0	0.00	14	6.70
Other	4	3.33	1	1.12	5	2.39
Promo	7	5.11	4	4.04	11	4.66
Info on online classes/learning	0	0.00	3	75.00	3	27.27
Implementation of online classes/learning	4	57.14	0	0.00	4	36.36
Online classes/learning and technical	1	14.29	0	0.00	1	9.09
Other	2	28.57	1	25.00	3	27.27
Total	137	100.00	99	100.00	236	100.00

Table 4. Comparison of topics by journalistic approach in 2020 and 2021

In 2020, in articles on the topic of information on online classes/learning, the authors' attitude was mostly neutral (80% of the articles), no article was negative with regard to this topic, while 20% of them were positive. In 2021, neutral attitude of the authors was represented the most as well (89.47% of the articles), followed by positive attitude (6.58%), and negative (only 3.95%). Comparing the research years, an increase in the number of articles with a neutral attitude was found, but also a decrease in the number of articles with a positive attitude. In 2020, articles related to the topic of the online classes/learning experience in 2020 had the most negative authors' attitude (46.67%), and results pertaining to positive and neutral attitudes were similar (26.67%). In 2021, articles with the said topic were characterized with a negative attitude (66.67%), followed by positive (33.33%), while articles with a neutral attitude were not recorded. With regard to the topic of the online classes/learning experience in 2020, the largest number of articles were neutral in attitude (46.67%), and articles with positive and negative attitudes amounted to 26.67%. In 2021, 66.67% of articles were negative in attitude, 33.33% were positive, while there were no articles with a neutral attitude. A comparison between 2020 and 2021 showed a decrease in the number of articles which were positive in attitude, and an increase in the number of articles which were negative in attitude. In the first research year, the topic of the conduction of online classes/learning was mostly characterized by a neutral attitude of the author (59.5%), followed by positive (29.58%), and negative (11.27%). In 2021, 42.86% of articles had a negative and neutral attitude, and 14.29% had a positive one. Based on the

comparison, the largest decrease in the number of articles with a negative attitude compared to these two years was determined. This can be explained with the fact that in the second pandemic year there were no specific preparations concerning the implementation of online classes/learning, i.e. all the difficulties that took place in the first pandemic year were mostly eliminated, so the authors' attitudes were more positive.

TOPICS	2020	%	2021	%	Total	%
Attitude						
Info on online classes/learning	25	18.25	76	76.77	101	42.80
negative	0	0.00	3	3.95	3	2.97
neutral	20	80.00	68	89.47	88	87.13
positive	5	20.00	5	6.58	10	9.90
Online classes/learning experiences	15	10.95	6	6.06	21	8.90
negative	7	46.67	4	66.67	11	52.38
neutral	4	26.67	0	0.00	4	19.05
positive	4	26.67	2	33.33	6	28.57
Implementation of online classes/learning	71	51.82	7	7.07	78	33.05
negative	8	11.27	3	42.86	11	14.10
neutral	42	59.15	3	42.86	45	57.69
positive	21	29.58	1	14.29	22	28.21
Online classes/learning and health	3	2.19	6	6.06	9	3.81
negative	1	33.33	5	83.33	6	66.67
neutral	0	0.00	1	16.67	1	11.11
positive	2	66.67	0	0.00	2	22.22
Online classes/learning and technical	15	10.95	1	1.01	16	6.78
negative	4	26.67	1	100.0	5	31.25
neutral	5	33.33	0	0.00	5	31.25
positive	6	40.00	0	0.00	6	37.50
Other	8	5.84	3	3.03	11	4.66
negative	2	25.00	0	0.00	2	18.18
neutral	3	37.50	3	100.0	6	54.55
positive	3	37.50	0	0.00	3	27.27
Total	137	100.0	99	100.0	236	100.0

Table 5. Attitude by topic in 2020 and 2021

The topic of online classes/learning and health had the most articles with a positive attitude in 2020, 33.33% with a negative attitude, while a neutral attitude was not recorded. In 2021, 83.33% of articles were negative in attitude, 16.67% were neutral, while there were no articles with a positive attitude. The comparison showed a significant decrease in the number of articles with a positive attitude, and an increase in those with a negative one. In 2021, several articles which pointed out the damaging effects of online classes/learning to the psychophysical development and health of students were recorded. A comparison of 2020 and 2021 showed a significant increase in the number of articles with the authors' negative attitude with regard to the topic of online classes/learning and health. In 2020, articles related to online classes/learning and technical conditions were characterized with the most

positive attitude (40%), followed by neutral (33.33%), and negative attitude (26.67%). In 2021, only one article with a negative attitude was recorded. In 2020, 37.50% of articles in the category “Other” were neutral and positive, and 25% were negative in attitude. In 2021, only three articles that were neutral in attitude were recorded, while there were no articles in the category “Other”. Overall, with regard to the entire corpus of research, the articles of online classes/learning were mostly characterized by the authors’ neutral attitude (87.13%), experiences of online classes/learning were mostly characterized by a negative attitude (52.38%), conduction of online classes/learning articles were mostly neutral (57.69%), online classes/learning and health articles were mostly negative (66.67%), online classes/learning and technical conditions were positive (37.50%), and others were neutral (54.55%).

DISCUSSION AND CONCLUSION

The Republic of Croatia, as well as the whole world, has faced a pandemic caused by the coronavirus. Faced with the rapid spread of the virus and despite the often fatal consequences of the disease, efforts were made in order to maintain the normal way of life as much as possible. In fact, we found ourselves in the “new normal”, and reconciled with that way of life. In all of the efforts to remain stable in all segments of life, despite the less than favorable conditions, the education of children, as a particularly vulnerable group, played an important role. All participants in the education system faced a professional challenge, starting with the organization of online classes, technical support, conduction of online classes, evaluation of online classes, and many other challenges. It was especially difficult to accept the “new normal” for children who were, in their critical age, away from their peers, and deprived of the social contacts they desperately needed.

With this paper, we wanted to explore the media portrayal, the presentation of the topic of distance learning, comparing the first two months of the pandemic in the Republic of Croatia with the same two months the following year, in 2021. According to distance learning, the results of the research will contribute to other research in terms of positive and negative Croatian experiences in distance learning from the perspective of all participants in the education system, especially students, teachers and parents.

The result of the research based on the three most widely read online portals according to the media digital Report from 2020 – 24sata.hr, index.hr, and jutarnji.hr – demonstrated that a larger number of articles was published in 2020, which could be explained by the fact that the pandemic has spread throughout the entire world and changed all of our lives. All activities within the society, including education and learning, faced an unknown challenge, and every piece of information was extremely valuable. Given the importance of information in crisis situations, and the pandemic certainly is one, the media have been placed at the forefront as intermediaries for the public.

Considering the geographic focus, and comparing the research years, it is possible to determine a decrease in the number of articles of the geographic focus of "Croatia", and an increase in the number of articles of the geographic focus of "Croatia – locally". The results are not unexpected. The reason for this may be that the Ministry of Science and Education (2020e) officially prepared three teaching models for three pandemic scenarios during the COVID-19 pandemic. In 2021, the National Civil Protection Headquarters of the Republic of Croatia granted authorization to the local headquarters, which are defined by counties, to decide on the implementation of online classes/learning depending on epidemiological measures and the situation in a particular county.

Accordingly, there was a larger number of articles which contained instructions from the Ministry of Science and Education in accordance with the local headquarters. Considering the representation of the topic, looking at the overall picture, but also individually by year, the most prevalent topics were online classes/learning and the conduction of online classes/learning in relation to online classes experiences, online classes/learning and health, technical conditions and online classes/learning.

By analyzing the journalistic approach to the research topic, it can be concluded that there is no major difference in the ratios of informative, analytical and critical, and promotional articles when comparing the two research years. In both years, the largest number of articles, over 80%, were of informative nature; in 2020, there were 7.30% of articles of analytical and critical nature, and in 2021 there were 6.06% of them, while there were even fewer promotional articles in 2020 (5.11%), and 2021 (4.04%).

With regard to the media portrayal, i.e. the attitude that was prevalent concerning online learning/classes, it is evident that, within the topic of information on online classes/learning, a neutral attitude dominated, which we expected considering the title of the topic. From the articles on online classes/learning experiences, a negative attitude prevailed in both years (2020 – 46.67%; 2021 – 66.67%).

More than half of the articles on the implementation of online classes/learning in 2020 were neutral in attitude, and in 2021, 42.86 articles were neutral in attitude, while there was a significant increase in the number of negative articles compared to the year before (2020 – 11.27%; 2021 – 42.86%). When it comes to articles on online classes/learning in the context of health, only three articles were published in 2020, which were mostly positive in attitude (66.66%). Six articles with a prevailing negative attitude (over 80.00%) were published in 2021.

The most widely written about articles in 2020 were those concerning technical conditions and online classes/learning. In the research period, in 2021, only one article with a negative tone was published. In 2020, a positive attitude prevailed (40.00%), and the topics of technical support and difficulties at

the start of online classes can be seen in articles that were neutral (33.33%), and negative in attitude (26.67%).

These findings are hence partly in line with the findings of M. Kuzelj and K. Šamija (2020: 948) which shown that the interpretative framework in most articles was neutral, then followed by a negative approach.

From what was stated above, we can conclude that the research period was a challenge for the society as a whole, especially children in terms of education for all who are a part of the educational process. The fact is that the media played a significant role in terms of informing the public, and consequently, their responsibility in terms of ethical reporting was significant. At the time of writing, the pandemic is still ongoing. Therefore, we can expect more detailed and broader research on this topic in the future.

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IMPACT OF DIGITAL MARKETING IN CONSUMER BEHAVIOUR IN THE COVID-19 ERA

Kanavaki, Maria; Malindretos, George

Dept. of Economics and Sustainable Development, Harokopio University (HUA), Athens, Greece

ABSTRACT

The aim of this study is to investigate the impact of Covid-19 on consumer behavior in their online markets and how digital marketing influences their markets and decisions. In this sense, it highlights the problems and changes derived from the pandemic, both in consumer behavior and in society at large. In addition, the study addresses the contribution of technology to daily transactions and communication.

For this scope, an empirical research was conducted through a structured questionnaire contacted to 328 consumers. One of the main findings was that the key features of a site in order to attract more potential customers are the photos that represent exactly the product. Furthermore, VR/3D environment in searching and purchasing process can become helpful for consumers.

This research aims to provides some useful insights regarding updated consumers preferences in the era of Covid-19, that could indirectly help businesses to sufficiently redesign their digital marketing plans towards meeting consumers' expectations.

Keywords: Digital Marketing, Consumer's behavior, Covid-19, Social Media, Digital Marketing Strategies

INTRODUCTION

Marketing has been and will always be an important element for any business (Kuratko, 2016). The COVID-19 epidemic is a reminder that pandemics, like other rare disasters, have occurred in the past and will continue to occur in the future. Since it is almost inevitable to prevent the appearance of dangerous viruses, we must be prepared to reduce the effects they will have on society. The current pandemic has, among other things, serious economic consequences around the world, as evidenced by the dramatic changes that have taken place both on the part of businesses and on the part of consumers (Donthu and Gustafsson, 2020).

The pandemic can trigger a number of channels, including for example, labor markets, global supply chains, consumption behaviors, all of which can affect global economy. Among these channels, one of the most important components is definitely the stock markets (Topcu and Gulal, 2020).

As we are in the middle of a pandemic, it is very difficult to assess its long-term effects (Donthu and Gustafsson, 2020). Competition is growing and businesses need to adapt quickly to evolving changes in digital commerce (El Junusi, 2020). Online communication, online psychology and online shopping show groundbreaking growth (Donthu and Gustafsson, 2020).

The evolution of technology has played a crucial role in the development of digital marketing. In the future, entrepreneurs will be forced to follow technological developments with digital marketing tools to increase their sales (El Junusi, 2020). Research shows that during the pandemic and the lockdown, social media usage rates increased significantly (Kaklauskas, 2020), like Facebook, Instagram, Blogs, Tik Tok and others platforms. This happened because people were escaping their grief and difficulties or even being informed.

The pandemic has come and will remain for a long time, so the attitudes of consumers, but also of businesses themselves, are changing. In addition, new habits are likely to emerge due to technological developments that will lead to corresponding changes in standards (Sharma, 2020). Shopping habits are constantly changing and will continue to change after the pandemic period.

CONSUMER BEHAVIOR IN THE COVID-19 ERA

What we know is that the world has changed. As with other global events with an impact on the planet, such as Covid-19, it can potentially change the way we see the world, the way we think and the way we behave (He and Harris, 2020).

During the Covid-19 pandemic, most companies turned unavoidably to e-commerce and digital marketing in the midst of this pandemic, this way of doing business has allowed consumers to interact with the product. Shopping habits and consumer attitudes are constantly altering. Most markets focused on basic needs, such as food. People are now buying more consciously. Markets and consumption vary from country to country, but the common effect of the pandemic is to affect the economy. Consumers in India and China are more optimistic from those in Europe and the US. Due to a complete lockdown in countries such as India, South Korea, China, Italy and other nations, consumers could not even shop in supermarkets and were forced to store their products at home (Sharma, 2020).

Already after a year of pandemic, people all over the world are buying, living and thinking differently. Consumers are learning to improvise and learn new habits. For example, consumers cannot go to the store, so the store comes to them (Sheth, 2020).

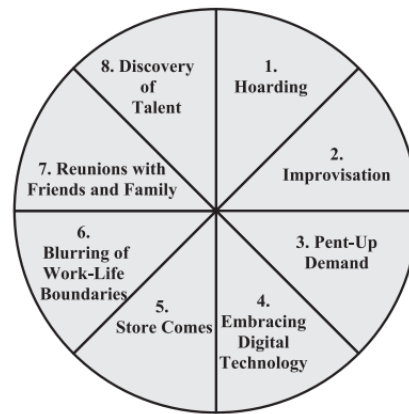


Figure 1. Immediate Impact of Covid-19 on Consumption Behavior (Sheth, 2020)

1. Hoarding: Consumers are stockpiling essential products for daily consumption resulting in temporary stockouts and shortages.
2. Improvisation: Consumers learn to improvise when there are constraints. An example is online education.
3. Pent-up Demand: During times of crisis and uncertainty the general tendency is to postpone purchase and consumption of discretionary products or services (Sheth, 2020).
4. Embracing Digital Technology: People were forced to reconcile and learn about technology and new platforms. Most consumers like social media including Facebook, WhatsApp, YouTube, WeChat, LinkedIn, and others (Sheth, 2020). The impact of digital technology in general and social media in particular on consumer behavior is massive in scale and pervasive in consumer's daily life (Sheth, 2020).
5. Store Comes Home: Due to the confinement in homes, as was the case in many countries, such as Greece, India, South Korea, China, Italy, and other nations, consumers "brought" the shops home.
6. Blurring of Work-Life Boundaries: It is one of the major disadvantages of working from home, as it is important to set limits on working time apart from the personal life.
7. Reunions with Friends and Family: Everyday life, before Covid-19, had reached a point where the person did not have time to socialize with the people who live together, with his family.
8. Discovery of Talent: With more flexible time at home, consumers had time to spend with themselves and discover it. Consumer habits changed radically because they were forced to stay in their homes.

Covid-19 has increased the use of social media on Facebook, Instagram, WhatsApp, Twitter, and Zoom. They are generating enormous amount of data from word of mouth. Current analytic techniques are not as useful with video conversations (Sheth, 2020).

DIGITAL MARKETING AND SOCIAL MEDIA

Social media marketing refers to the use of tools such as social media, online communities, blogs, for marketing purposes. The most common tools with online social networking are Twitter, blogs, LinkedIn, Instagram, Youtube and Pinterest (Kuratko, 2016). It is important to understand what marketing tools and techniques are used. Then, by understanding these, one can predict how consumers will behave (Yuruk-Kayapinar, 2020). Businesses can use social media to communicate about their corporate social (and environmental) responsibility (CSR), corporate governance, responsible procurement, philanthropic and stewardship practices, etc., in different markets (Camilleri, 2021).

Digital marketing has become a new phenomenon that unites mass adjustment and distribution to achieve marketing goals (El Junusi, 2020). Research has shown that companies have benefited from digital marketing, such as search engine optimization (SEO), content marketing, social media marketing, email marketing, online advertising, search engine marketing (SEM), content search engine optimization (SEO), social media marketing, e-mail marketing, online advertising (Eti and Bari, 2020). Thus, marketing has become a very powerful tool for all businesses, as they can plan their targeting. Digital marketing reduces the distance between firms and their employees. Institutions and organizations may usually promote their activities and/or offerings through websites or other digital media including blogs, vlogs, video clips and social media, among others (Camilleri, 2021).

International marketing programs and strategies should be adapted regularly in order to take into account new trends and therefore current developments (Katsikeas et al., 2019). Part of the marketing strategy is to target customer information, developing communication strategies to attract more customers and become loyal to the company's product. The main ones that belong in **Digital Marketing Strategies** are (Eti and Bari, 2020):

- *Online advertising*
- *Email Marketing*
- *Search Engine Optimization (SEO)*
- *Social Media Marketing*

Advertising Audience Overview	Number of People can be Reached with Adverts on Social Media
Facebook	2.09 billion
Instagram	1.08 billion
LinkedIn	702 million
Twitter	326 million
Pinterest	179 million

Figure 2. Number of people can be reached with adverts on social media (Eti and Bari, 2020)

As technology continues to mature, social media shopping can offer an exciting shopping experience that replaces in-store interactions (Solomon, 2018). Especially for the use of opinion guides and market mavens through social media, special applications have been developed, such as Yahoo! Buzz log and Facebook Daily Buzz Index, which do not concern exclusively products, but any information circulated through the internet (Baltas and Papastathopoulou, 2003).

Digital marketing theory can be shown in the AIDA model. The AIDA model focuses on Attention, Interest, Desire and Action for the consumer (Eti and Bari, 2020, figure 3). Through many researches the AIDA model has 4 stages. The first stage is digital platforms draw the attention of the potential buyer. The second stage tries to create interest in the benefits of product or service features. After, it creates an emotional link and the last is that the advertising move the buyer in the next cooperate page.



Figure 3. AIDA model (Eti and Bari, 2020)

About a year ago, a study by Rigby (2020) showed that Covid-19 has had a significant impact on consumer behavior. The survey was conducted on respondents in America.

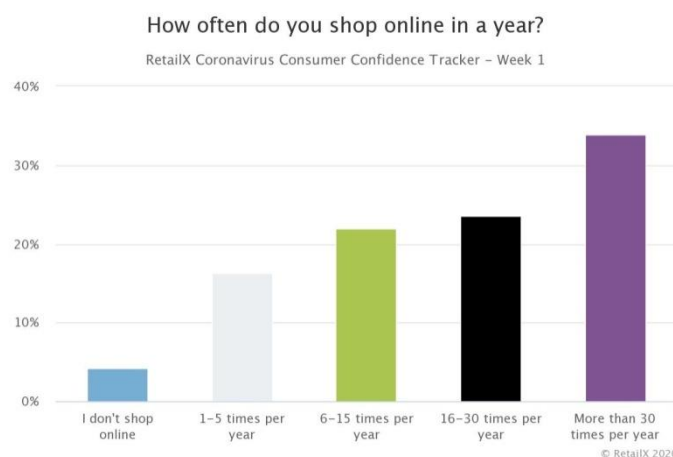


Chart 1. Chart- how often do you shop online in a year?

According to this survey the majority shops online more than thirty times a year (chart 1). Another important outcome is presented in chart 2. More specifically, more than three-quarters (78%) said they were shopping online *from groceries to the same extent as previously* and a quarter (15%) said they increased

shopping online from groceries. Some 86% are buying electronics equipment online to the same extent, while 7% are buying more, 5% less. Most (83%) continue to buy clothes online at the same level as previously, while 10% are buying more. Last but not least, almost 73% are buying takeaway food to the same extent, 7% are buying more, 11% less and 7.5% have stopped. (Rigby, 2020)

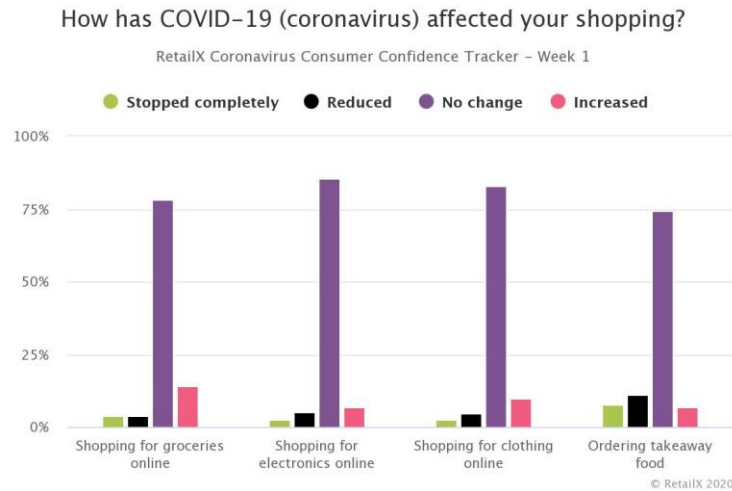


Chart 2. Chart- how has Covid-19 affected your shopping?

Also, through the surveys announced by Statista from time to time, it published which are the most popular social networks worldwide as of January 2021, with number of active users in millions. First, the most popular social network is Facebook with 2.740 millions, the second is Youtube and the third is WhatsApp with 2.000 million users. Another chart that was announced was for global active usage penetration of leading social networks as of February 2020, which again the Facebook is first with 63% of respondents. In contrast to 2016, Facebook active monthly users in the second quarter of 2016 were 1.71 billion, Twitter had 313 million monthly active user and Instagram had 500 million monthly active users, with the whole world logged on social media. So it can be understood that, the number of customers on social media increasing day by day (Kapoor and Kapoor, 2021).

The country which announced from statistics Statista as leading countries based on Facebook audience size as of January 2021 is India with 320 million Facebook users and the second country is United States with 190 million. We can understand that it is really big different from the first to the second country.

The use of social media has increased considerably, resulting in noticeable increase in purchases through internet pages and e-platforms.








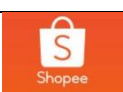


Top Retailers by Digital Performance in Q4 2020, Worldwide		
	Amazon	1.9B
	eBay	464M
	Walmart	419M
	Apple	304M
	Mercado Libre	235M
	AliExpress	233M
	Samsung	207M
	Shopee	196M
	Rakuten	185M
	Etsy	178M

Table 1. Top Retailers by Digital Performance in Q4 2020, Worldwide (Zhukova, 2021)

Amazon completely dominated the global online shopping market both on the web and via mobile app. The only single-brand retailers making it to the list are Samsung and Apple - the two unbeatable tech companies whose brand affinity makes up for a lack of product range compared to Amazon and Walmart (Zhukova, 2021).

Due to COVID-19, e-commerce has grown rapidly and consumers have integrated it into their daily lives. However, many problems arose, such as the process of shipment and supply.

Online shopping provides more convenience in terms of time and location of the store; however some consumers prefer their purchases from physical stores because in online shopping product information is limited and often limited to a few pictures or descriptions by them sellers. To face this challenge, Carvana consumers can view the car and interior virtually with patented 360° photo technology (Kim, 2020), while Amazon offers virtual clothes fitting experience by utilizing augmented reality (AR) technology. In general, virtual reality (VR) and AR techs are expected to open new opportunities for personalized shopping experiences online (Kim, 2020).

IMPACT OF PANDEMICS TO MARKETS

In large scale pandemics, effects are felt in wider areas and in the wider economy for two reasons, either because infection is widespread or because it has affected trade and the market as a whole

(Jordà et al., 2020). Pandemics, although considered unlikely before COVID-19 broke out, are taken into account to be one of the major threats to business (Kim, 2020). With the pandemic, people suffered not only health problems but also significant job loss and loneliness (Sharma, 2020).

Online shopping is a safe way to shop through a pandemic and is likely to continue after that (Kim, 2020). According to a research by Jordà, Singh & Taylor (2020), which answered the question if all countries in the Europe experienced pandemics in the same manner shown. The results show that countries like France, Italy and Spain, where the effects of pandemics are much larger in contrast to the Anglo-Saxon bloc of the Germany, the Netherlands and the U.K., with far more modest effects on the natural rate.

PAPERS STUDY FRAMEWORK & MAIN RESULTS

The present study aims to investigate the behavior of Greek consumers in relation to digital marketing in the era of Covid-19. To achieve this goal, the research tool used was a questionnaire through the Google Forms platform.

Survey aimed at investigating consumer behavior through social media, advertising and online shopping in general and more particularly during economic crisis and Covid-19 period. In this respect, the following research questions were formulated:

- How is consumer behavior affected by the increased use of social media?
- How much has internet use increased in the midst of a coronary?
- How much are consumers affected by advertising in mass media?

The sample included 328 respondents, the majority of whom were women (64.94%), while the age of the sample ranged from 18 years to 69 years (Chart 3).

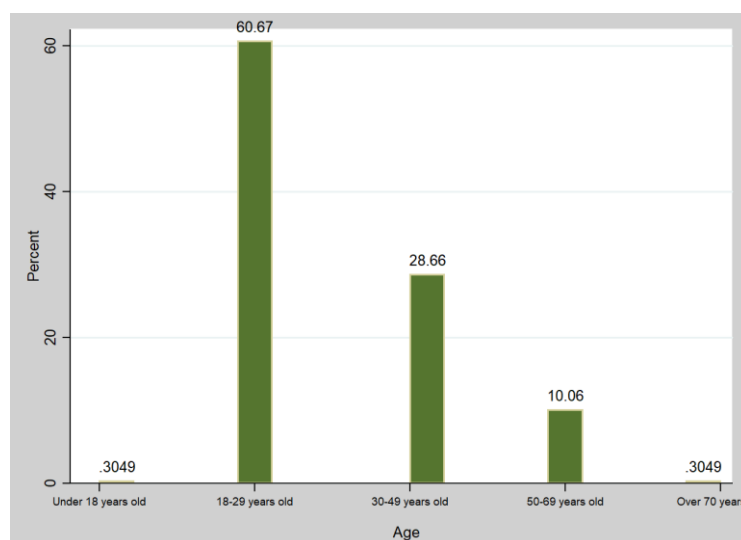


Chart 3. Age of respondents

Surveying the sample, 127 out of the 328 respondents registered on new platforms in during Covid-19 period, as shown in the following table.

Social Media	Respondents
Tik Tok	77 (60,6%)
Other	26 (20,5%)
Instagram	20 (15,7%)
Twitter	20 (15,7%)
LinkedIn	18 (14,2%)
Pinterest	12 (9,4%)
Viber	8 (6,3%)
Facebook	5 (3,9%)
Youtube	5 (3,9%)
Snapchat	5 (3,9%)
Messenger	4 (3,1%)

Table 2. New registrations on social media in the Covid-19

Comparing the above results with the research published by Statista for January 2021 reveals that while the majority of the sample answered that they registered in the middle of Covid-19 in Tik Tok and Instagram, Statista refers to Facebook, Youtube and WhatsApp.

In addition, as it is well known and through many studies, the corona virus has greatly affected consumer behavior and preferences. In the chart below, it can be seen that technologically advanced tools positively affect consumers' choices. More specifically, respondents were asked about a VR/3D environment in the searching and purchasing process, as for instance in the case of IKEA in the midst of a pandemic. IKEA and Amazon have launched VR and AR shopping applications that either allow to furnish and experience entire virtual rooms (VR: IKEA VR Experience or IKEA Immerse), or to place virtual objects into one's own apartment to get an instant feedback on whether the product fits into the apartment (AR: Amazon AR view or IKEA Place App).

The majority of the sample (37,5%) neither agree or disagree with the impact of such tools in their purchasing process. This is in line with research by Meißner et al. (2020) as a result that consumers will use VR environments for shopping in the future is hard to answer, because, on the one hand, companies are becoming increasingly interested in using VR technology as are tail channel. On the other hand though, many consumers are unfamiliar with the technology and need more time to adjust and get used to it.

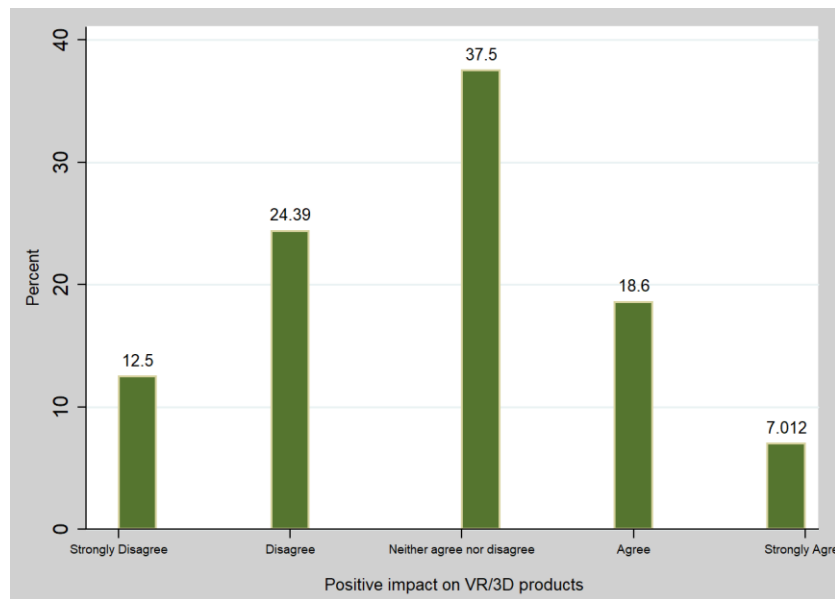


Chart 4. Positive impact on VR/3D products

Another question referred to the feature they consider as the most important for visiting and spending time in a company's site. The majority answered that products' photos (44.82%) and convenience (accessible information and transactions, 40.55%). The lowest percentage (1.83%) regards graphics (designs, color, etc), as shown in chart 5.

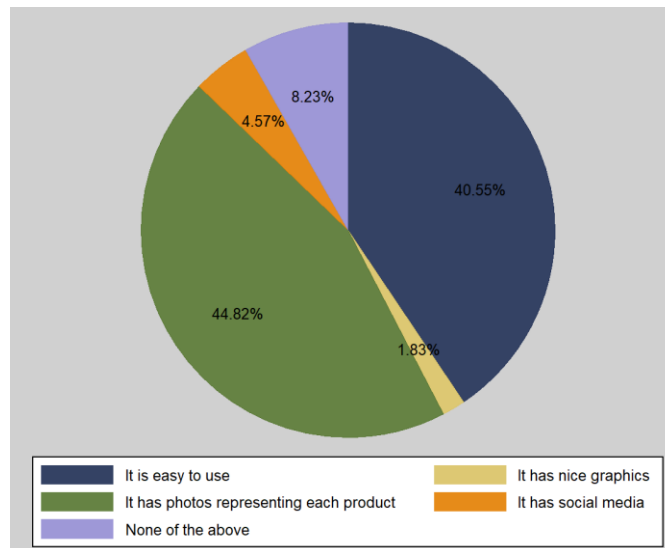


Chart 5. The most important feature for a site

A similar study was conducted by Widanapathirana (2010), where he appeared for the most attractive features of websites is the color, while also graphics play a significant role regarding the convenience of accessing the required information included in a site (chart 6).

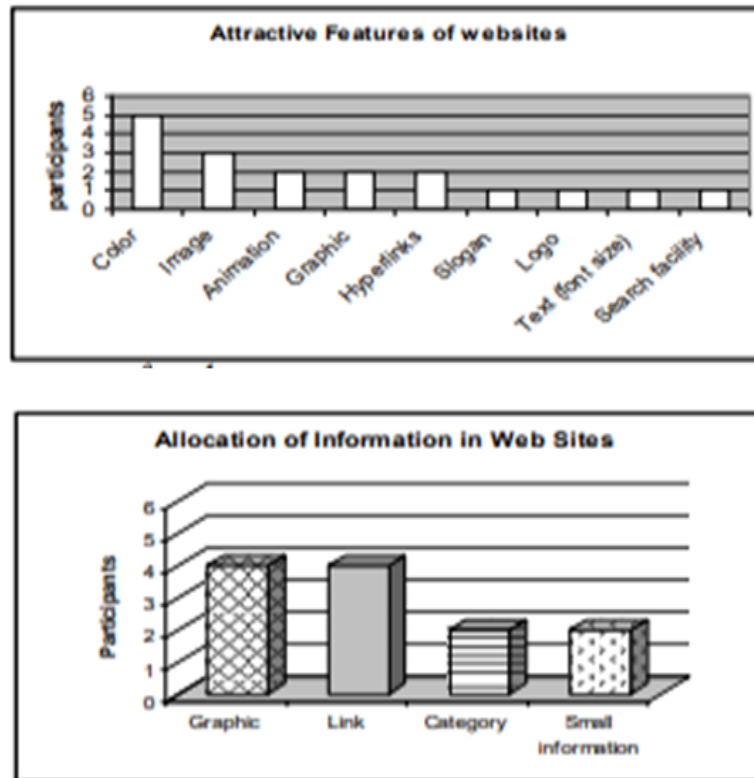


Chart 6. Features and information for a site Widanapathirana (2010)

Another important outcome of this paper's study is that 66.77% answered that only sometimes the delivery is on time as (chart 7). Based on this, logistics and possible delays may have negative impact on digital marketing and e-commerce in overall. The more frequent the on-line purchases by the customers are the worst is their opinion regarding delivery on-time consistency. In this line, the result of the study by Koyuncu and Bhattacharya (2004), found that people who buy online once a week or make several online purchases in a month had negative impact of product delivery risk, in contrast to those who do online shopping less than once a month, who had a positive impact of product delivery. Some studies focus on the significant impact of logistics service quality on customer satisfaction, and in turn on repeat on-line purchasing behavior (Choi et al., 2019). In addition, due to strict lockdown, the manufacturing and logistics activities have been suspended, and it has affected the demand and supply of various products as a result of restrictions imposed on shopkeepers and retailers (Singh et al, 2020). Impacts of COVID-19 are observed ubiquitously in every type of units from different sectors.

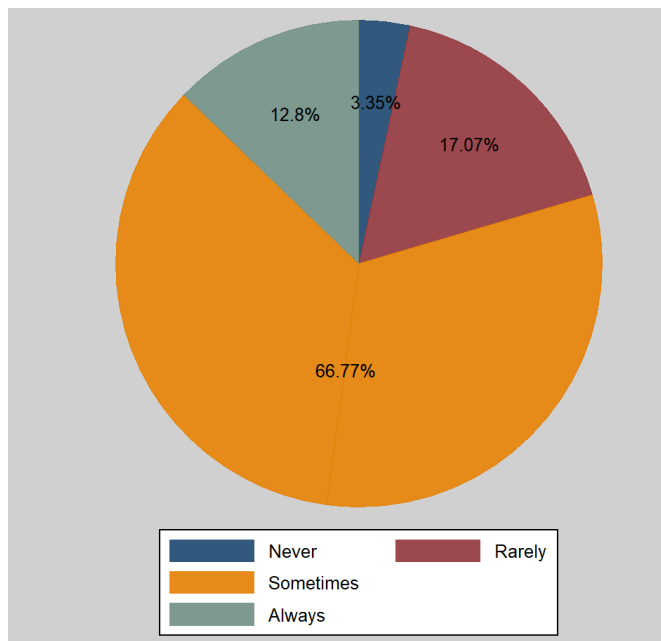


Chart 7. Delivery on time in online shopping

As mentioned by Katsikeas, Leonidou and Zeriti (2019) online sales are gaining momentum, but 24 hour service from the company and proper planning of transportation means are critical. Digitalized technologies and management information systems, such as warehouse management systems (WMS) could contribute in this respect, especially if combined with forecasting and inventory control tools. Moreover, fleet management systems can improve the transport process in terms of both speed and customer service quality (providing effective on-line track and trace service).

CONCLUSIONS AND FURTHER WORK

As can be understood from this research, despite the adverse and unpredictable conditions created by Covid-19, marketing along with the internet and internet applications has greatly helped e-shopping to run as smoothly as possible. In general, there has been an increase in online shopping through online applications and this situation is likely to continue after Covid-19. However, Covid-19 has created much insecurity, especially for the possible shortage of raw materials.

Businesses now, whether small or large, must take advantage of social media and design a very functional, attractive and user-friendly site, so that potential customers are predisposed positively. In this direction the paper aims at providing some useful insights regarding digital marketing in relation to consumer preferences in the new prevailing digitalized business era.

Main findings of this study reveal at first the inefficient supply chains in terms of delivery times. In addition, the most attractive features that impact consumers' behavior are photos as well as a VR/3D

environment, while previous studies, before Covid-19, focused on colors and graphics correspondingly.

Future studies need to shed light in the specific actions, tactics and plans regarding marketing and logistics and more specifically, regarding the new digitalized business that has been significantly grown in the covid-19 period. In this respect, the effective use of social media and how they can contribute to customer's convenience and satisfaction can be further explored, according to new customer behavior patterns. Finally, the results and the effects that the corona virus caused to the companies and the marketing strategy applied in order deal with can be further explored.

IMPLICATIONS

The era of Covid-19 came and it will stay and with it brought many changes in digital marketing and online shopping. Customers now buy much more from the internet and therefore have different needs. Businesses need to be flexible and take care of or anticipate the needs of their customers in the new digital business environment.

Those companies that remain in the traditional style, unfortunately in a few years will not be able to cope. They need to create social media pages and features in sites that will serve their customers and attract them to make purchases. Furthermore, businesses need to be organized much more effectively so that the orders reach the customers according to their expectations.

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DIGITAL TRANSFORMATION AND MANAGEMENT CONTROL – AN ANALYSIS OF THE RECIPROCAL RELATIONSHIP

Kraus, Patrick¹; Schlegel, Dennis²

¹Business School, Pforzheim University, Pforzheim, Germany

²School of Informatics, Reutlingen University, Reutlingen, Germany

ABSTRACT

The disruptive potential of digital transformation (DT) has been widely discussed in scholarly literature and practitioner-oriented discourses. The management control (MC) function is an important corporate function, as it provides transparency on the economic situation of a firm. DT challenges MC in a two-fold and reciprocal nature as it (i) changes the MC function itself as well as (ii) the entire firm and its business models, which needs to be accompanied by the MC function. Given the complexity and variety of phenomena within the developments in the context of DT, a comprehensive management approach is essential. Surprisingly, there exist few convincing approaches, which support a comprehensive management of the DT. The objectives of this paper are therefore to discuss the impact of DT on MC, as well as, to develop a framework to control DT of an organization from a MC perspective. Based on a literature review and conceptual research, our study contributes to knowledge by proposing an initial, preliminary conceptual framework to manage DT, from a MC perspective. The framework highlights important dimensions that should be considered in the management of DT, for example related to processes and MC instruments.

Keywords: Digital Transformation, Digitalization, Management Control, Framework, Germany

INTRODUCTION

Digital transformation (DT) has been a major disruptive trend for organizations in various industries in recent years, creating a demand to transform processes, business models and the organization as a whole (Doukidis, Spinellis and Ebert, 2020). These developments have been massively accelerated by the Covid-19 pandemic (e.g. Agostino, Arnaboldi and Lema, 2020; Soto-Acosta, 2020).

Many studies have highlighted the importance of DT for firms in general (Matzler *et al.*, 2018; Margiono, 2020), as well as, for specific industries such as the automotive industry (Llopis-Albert, Rubio and Valero, 2021) various other industries (Stark, 2020) and traditional industries (Andal-Ancion, Cartwright and Yip, 2003; Remane *et al.*, 2017). Besides an industry-specific perspective, also a functional view has been applied, for instance analyzing DT of the sales function (Guenzi and Habel, 2020) or the finance function (Glader and Strömsten, 2020). However, DT in the context of the

management control (MC) function has been left quite unexplored, especially in an English-speaking scholarly context (e.g. Möller, Schäffer and Verbeeten, 2020).

The overall aim of this article is therefore to shed light on DT in the context of the MC function. More specifically, the following objectives have been formulated. First, to discuss the impact of DT on MC. Second, to develop a framework to control DT of an organization from a MC perspective. By doing so, existing frameworks are critically compared and discussed. The nature of the research is conceptual mainly based on literature review. Conceptual discussions are reflected in the context of the professional experience of the authors in order to ensure practical relevance and applicability of the developed framework. The main contribution to knowledge of this paper is hence the proposal of a novel conceptual framework to control DT. Additionally, the paper usefully synthesizes the key discussions and developments of DT in a MC context, also bringing important contributions from prior publications in German language to the international scholarly debate.

The remainder of this paper is structured as follows. First the research approach and nature of the research will be discussed subsequently followed by exemplifying the contextual and theoretical background (DT, MC). Then the impact of DT on MC is being discussed illustrating the reciprocal relationship between MC and DT as well as critically comparing existing conceptual frameworks. Finally, we propose the digital transformation control framework (DTCF) and conclude our discussion with a brief summary of the key findings.

RESEARCH APPROACH AND THE NATURE OF THIS RESEARCH

The development of the conceptual framework conducted in this research is mainly based on a literature review and further enriched and reflected with the extensive professional experiences the authors gathered in practice and consultancy projects in the fields of DT and MC. Hence, the nature of this research is also practice-oriented, however, intensively rooted in the theoretical discussions and foundations within the research field. This can be considered an appropriate approach, given the nature of the phenomena under research and the importance for scholars, especially in the business and management context, to deal with challenges and issues which are relevant for management practice.

The literature review has been conducted in a narrative or semi-systematic way (Snyder, 2019). A substantial set of international literature has been reviewed, but also many pieces of literature published in German as (i) MC tends to be a phenomenon particularly discussed in a German context, (ii) MC has a long tradition and is a central discipline in German management and business education and practice, (iii) there are a number of specialized MC university chairs in Germany and (iv) finally there can be observed an intensified discussion on the impact of DT on MC and the future development of the field due to challenges and change imposed by DT. Hence, combining international literature

and German literature and bringing prior research results published in German language to the international scholarly debate can be considered as an important contribution to the discussion in the research field.

As indicated, the results and implications discussed in this research are partly based on the personal and professional experiences of the authors. To some extent, the research approach applied in this research is hence inspired by action research oriented research approaches (Wolfram Cox, 2012). Action research can be understood as an approach that relates to practical questions and challenges of management and organizations and consequently is very much concerned with understanding the needs of practitioners (Eriksson and Kovalainen, 2013). There exist a variety of different action research approaches and orientations (Denis and Lehoux, 2009; Eriksson and Kovalainen, 2013), being distinct regarding the goal and research process, as usefully summarized by Denis and Lehoux (2009). The discussion of Eriksson and Kovalainen (2013) exemplifies typically a direct and intense collaboration between researcher and the research subject, resulting in a specifically solved problem such as an optimized business process, activities etc. However, while Eden and Huxham (1996) usefully discuss the very nature of action research and how to conduct rigorous action research, they also indicate that degree of involvement with the organizations under research vary considerably between a direct involvement to a general concern to them. According to Denis & Lehoux (2009), based on the writings of Cullen (1998), the generic properties of action research can be summarized as follows:

- Close interactions with practitioners
- Experiential knowledge in order to understand the practical challenges
- A close connection between objectivity and subjectivity in human action
- The research has the potential to contribute to the construction of organizational realities
- Reflexivity as a central aspect when construction new organizational forms or procedures
- A close link between research practice and the development of new ideas

Given the action research-oriented nature, the authors benefited over the last years from many formal and informal discussions, with managers, colleagues and clients and the conduction and implementation of projects and processes in various companies in the domains under research. Hence, the action research-oriented research approach applied within this research, does not refer to a specific practical problem in one single organization it includes rather the accumulation of various practical questions and issues related to the research question and the development of the conceptual framework. The overall applied research approach can be illustrated as follows:

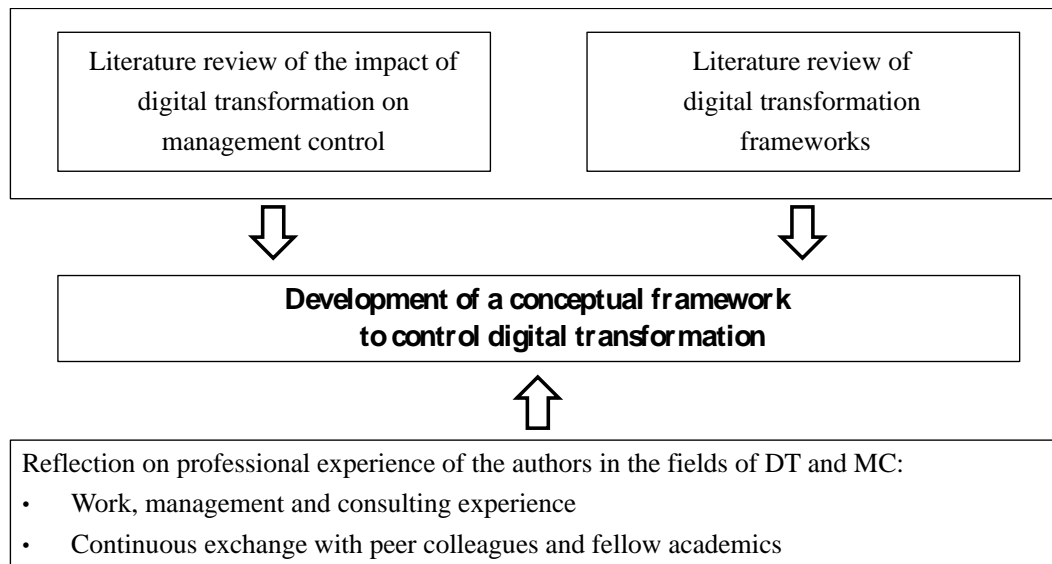


Figure 1. *Conceptualisation of the research approach*
(Source: own illustration)

Given the nature of the research approach, the framework and implications tend to be exploratory providing avenues for further research and implementation and testing of the suggested framework in practice. Constant critical evaluation and especially reflexivity (Guillemin and Gillam, 2004) has been applied throughout the whole research project resulting in intense and lengthy discussions and critical reflections within the research team in order to ensure the rigor of the research process.

CONTEXTUAL AND THEORETICAL BACKGROUND

Digital Transformation

DT is one of the most important topics for business firms, academia and society in general likewise and we can observe a considerably increased discussion, which can be exemplified by the momentum of research output in terms of academic articles (Reis *et al.*, 2018; Hanelt *et al.*, 2020) but also a very intense practitioner oriented discourse mainly dominated by management consultancies and industry research institutes (e.g. Accenture, 2020; Gartner, 2020). DT has the potential to fundamentally change the way how markets and business models are functioning (Matzler *et al.*, 2018; Endres, Stoiber and Wenzl, 2019; Lois *et al.*, 2020) by means of a rapid and disruptive development and change of new digital technologies (Morabito, 2014; Margiono, 2020) as well as substantial developments of strategic, organizational and procedural aspects within a business firm to sustain value creation and competitive advantage in large multinational enterprise and small and medium-sized contextual settings (Cha, Hwang and Gregor, 2015; Becker and Schmid, 2020; Kindermann *et al.*, 2020; Peter, Kraft and Lindeque, 2020).

The research field of DT tends to be diverse, fragmented and influenced from various different research streams. Hence, given the intensified discussion and fragmentation, several scholars have taken stock of the research field by means of an intense review of the literature (Reis *et al.*, 2018; Hausberg *et al.*, 2019; Vial, 2019; Hanelt *et al.*, 2020; Nadkarni and Prügl, 2020; Verhoef *et al.*, 2021).

Reis *et al.* (2018) found that DT definitions can be grouped in distinct understandings, including a (i) technological, (ii) organizational and (iii) society perspective. For instance, Hess *et al.* (2016, p. 124) state that DT “is concerned with the changes that digital technologies can bring about in a company’s business model, products, processes and organizational structure.” Moreover, Vial (2019, p. 127) defines DT as “a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies”. These exemplary definitions usefully illustrate the very core of DT, as such the impact on business models, challenging internal organization and procedures and the involvement of new technologies and IT infrastructure and hence also emphasizes the complexity of phenomena related to DT.

Many authors emphasize the people and organizational dimension of DT, highlighting the need for new skills and competencies (Andriole, 2018; van Laar *et al.*, 2018), as well as, new organizational capabilities and a digital culture (Kohnke, 2017). Besides skill requirements, also new leadership styles might be required and employees have to be reached at all levels to foster acceptance and adoption of digital tools (Welch and McAfee, 2013). According to (Hoberg, Krcmar and Welz, 2017), organizations face the dilemma that digital skills are required before DT projects can actually be started.

According to the conceptual model by Doukidis, Spinellis and Ebert (2020) that was developed by expanding previously published models (Westerman, Bonnet and McAfee, 2014; Sebastian *et al.*, 2017), DT is made up of four pillars:

- Customer experience transformation refers to comprehending the needs of customers and enhancing their experience in a digital sales process;
- Business processes transformation deals with digitalizing the business processes and improving performance management;
- Business model transformation is important to create innovative revenue streams based on digital activities;
- organizational transformation that accompanies the business transformation by respective changes to strategy, organization and workforce.

Synthesis of Management Control

There does not exist something like a generally accepted definition of MC in literature, rather there can be found various understandings as indicated by Horváth, Gleich and Seiter (2020) and there exist similar terms like Controlling, which require some terminological ordering.

According to Weber (2018) controlling primarily is concerned with phenomena related to practical challenges of business firms, while there indeed can be observed an intense scholarly debate, especially when looking at recent developments in the context of digitalization and DT, discussions in practice and academia still seem to be quite separated. The discussion of Grisar and Meyer (2016) indicates that in a German-speaking context controlling is a term related to terms such as management accounting and MC and these are frequently used synonymously. Within this research, the term MC will be used and is from our view very close to the understanding of the German term controlling and shall be understood in this way. Moreover, there exist various views on MC tasks in literature (Horváth, Gleich and Seiter, 2020; Preißler, 2020). For instance, Anthony (1965, p. 28) emphasized that „In practice, people with the title of controller have functions that are, at one extreme, little more than bookkeeping and, at the other extreme, de facto general management.“ However, besides the philosophical discussions what MC in detail is and what not, there can be observed an agreement on the very general understanding of MC including the aspects of planning, steering and monitoring in a continuous and cybernetic information processing context to support the alignment and focus of an organization to achieve its goals and strategies (Joos, 2014; Grisar and Meyer, 2016; Reichmann, Kißler and Baumöl, 2017).

A cybernetic nature is at the very core of each MC activity (Grisar and Meyer, 2016; Möller and Illich-Edlinger, 2018). According to Möller and Illich-Edlinger (2018) this results in a continuous cycle of setting objectives, planning and steering activities to achieve the defined objectives. In addition, they usefully illustrate the major MC processes. These can be illustrated as follows:

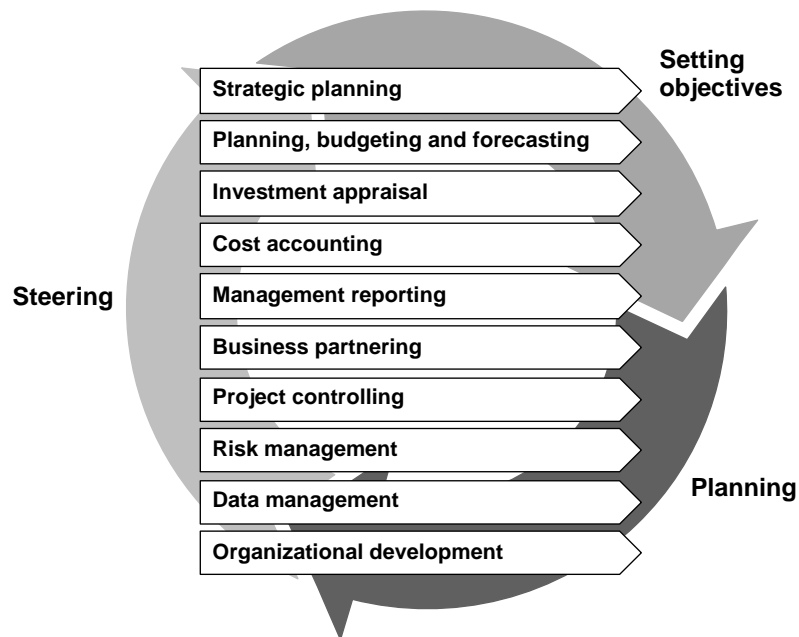


Figure 2. *Cybernetic nature of the major MC processes*
(Source: adapted from Möller and Illich-Edlinger, 2018)

MANAGEMENT CONTROL AND DIGITAL TRANSFORMATION

Impact of Digital Transformation on Management Control

With regard to a focus on the MC function and DT there seem to exist a limited number of comprehensive reviews (Möller, Schäffer and Verbeeten, 2020) and those existing tend to have a specific focus on, for instance, simulations in MC (Grisar and Meyer, 2016), business intelligence (Rikhardsson and Yigitbasioglu, 2018) or technology in the context of accounting (Moll and Yigitbasioglu, 2019).

As indicated above, DT has an immense impact on business and society and given the importance of transparency on the economic performance of a business firm the impact of DT on MC can be considered crucial for the long-term existence and competitive situation of a business firm. It is undisputed that almost all sectors, firms and operations are somehow affected by the developments triggered by DT. With regard to the MC function, rather from a holistic view point, two major developments can be currently observed (Schulze, Nasca and Eymers, 2019). There (i) is taking place an internal change within the MC function initiated by, for instance, new technologies and (ii) DT changes fundamentally how entire business firms and especially business models work and we experience a massive success of digital business models. This is accelerated by the Covid-19 pandemic and the MC function will have to understand these developments in order to be an appropriate business partner for management. Hence, the MC function is at least challenged in a two-fold way as can be illustrated as follows:

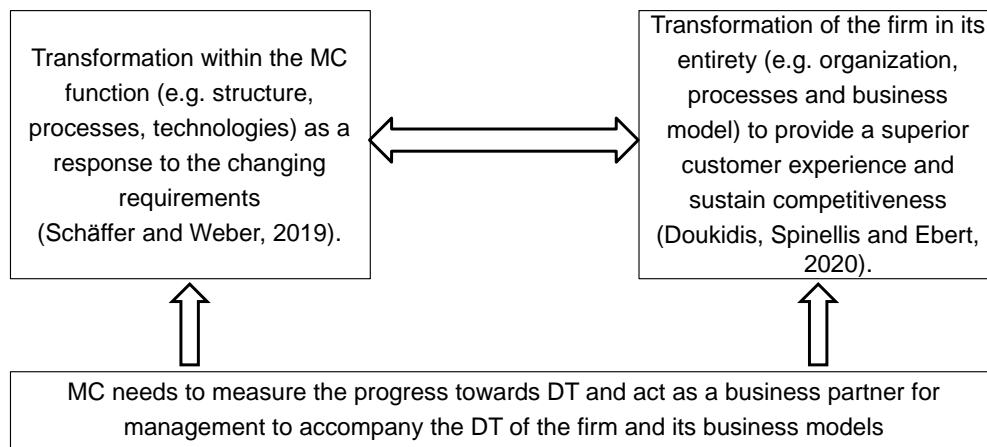


Figure 3. *Challenges for the MC function in the context of DT*
(Source: own illustration based on the cited literature)

Verhoef *et al.* (2021) refer to the issue of metrics to evaluate the progress within the DT of a business firm as well as with regard to business models such as platforms. The above said may refer to the issue of MC and the role of this functional discipline in managing a firm's approach towards DT. For instance, Möller, Schäffer and Verbeeten (2020) pose a number of potential research questions of which especially the use of MC systems in digital contexts is relevant to this research. Nadkarni and Prügl (2020) emphasize the increased need for a faster decision-making and strategy implementation at a managerial level, which elucidates the importance of practical and tailored management instruments and frameworks.

Recent research confirms that especially aspects in the context of DT are increasingly seen as important future topics for the controlling function such as information systems, data management or digital competences (Schäffer and Weber, 2018, 2021). However, a vast majority of firms experiences an inappropriate preparation to deal with the challenges due to DT (Seufert *et al.*, 2018) and also the digital divide between digital companies but also within the sphere of traditional companies seems to grow (Seufert *et al.*, 2020). Irrespectively, whether we talk about a digital revolution or evolution, which ultimately also depends on the business sector or corporate function (Baumöl, 2016), it is beyond doubt that DT will continue to change how firms will be managed successfully in the future and this will continue to have a severe impact on the MC function (Glader and Strömsten, 2020).

However, it is also important to critically reflect on the degree and extent of digitalization and what is reasonable in this context also from an economic point of view. The benefit of digitalization should be at the core and not what is technologically possible (Mayer and Wieselhahn, 2018). Moreover, it is important to keep in mind that the transformation will take time but also needs a proactive and persistent management (Schäffer and Weber, 2021).

Möller, Schäffer and Verbeeten (2020) argue that there still is limited research on the DT of MC, especially from an academic point of view and, while there certainly can be observed a considerably

increased output of papers, for instance, in the three German-speaking MC journals (Controlling – Zeitschrift für erfolgsorientierte Unternehmenssteuerung, Controlling & Management Review and Controller Magazin), the overall tenor is still very much practitioner oriented as also the active role of management consultancies indicate (PwC, 2015; Deloitte, 2018; Bearing Point, 2019; KPMG, 2019; Horváth & Partners, 2020; Accenture, 2021).

There seems to be a lack of frameworks, management approaches or KPI systems which support a systematic and concise steering of the implementation of DT, as for instance Pampel (2018) emphasizes that there are few compelling attempts in literature regarding KPIs for digital business models and Schönbohm and Egle (2017) indicate that traditional KPIs can only be used to a limited extent (see also Michel, 2017; Sieringhaus, 2019). Given the transformational changes within the MC function and with regard to firms in general and business models a comprehensive and practical MC framework can be seen as a crucial issue to manage DT. Möller, Schäffer and Verbeeten (2020, p. 2) state that “an overview and structuration of the field as well as conceptual ideas and reflection may be required.” Moreover, very recently Piazza and Abrahamson (2020) conclude their comprehensive literature review that there is a severe lack of even simple conceptualizations which explain the influence of the digital world on management practices. Given the research gap with regard to management instruments, the aim of this research is to develop such a conceptual framework which can be used to manage DT. The next section continues to critically review a selection of existing frameworks.

Digital Transformation Frameworks

There exist a number of frameworks in the literature with the objective to control and manage the complexity and various activities related to DT. A systematization and differentiation between the various types of frameworks, which have different objectives, scopes, underlying methods and cultural antecedents, depending on the geographical location, might be possible according to the following basic characteristics:

- maturity models to evaluate the status quo of DT within an organization and management frameworks in a more general sense, which base on checklists, refer to the phases of DT or areas and organizational dimensions, which need to be addressed within the transformation process. In tendency, frameworks in this category do not include a comprehensive set of potential KPIs (e.g. Matt, Hess and Benlian, 2015; Berghaus and Back, 2016; Hellge, Schröder and Zink, 2017; Müller, Schröder and von Thienen, 2018, 2019; Reinhard, Rentz and Sommerfeld, 2020).
- maturity models with a focus on a specific corporate function, such as with regard to the MC function (e.g. Koß, 2016; Langmann, 2019).
- Approaches which solely refer to a set of KPIs, without explicitly offering a management framework (e.g. Pampel, 2018; Sieringhaus, 2019).

- models offering a comprehensive steering approach based on KPIs to measure the progress towards DT within various corporate dimensions, internal and external ones (e.g. Schönbohm and Egle, 2016, 2017) as well as the model developed by Kirchberg and Müller (2016), which has been extended with KPIs by Schulze, Nasca and Eymers (2018, 2019).
- Project management approaches (e.g. Neumann, 2016; Kütz, 2017, 2019; Schmid, 2019), which are not primarily in the scope of this research.

In summary, the critical comparison and evaluation of the considered frameworks illustrate some deficits of existing approaches for a comprehensive steering approach. In order to be able to comprehensively control DT it is, from our view, inevitable to have

- a structured approach covering the diverse dimensions affected by DT
- a set of well-developed valid key performance indicators (KPIs) to measure the progress of DT activities

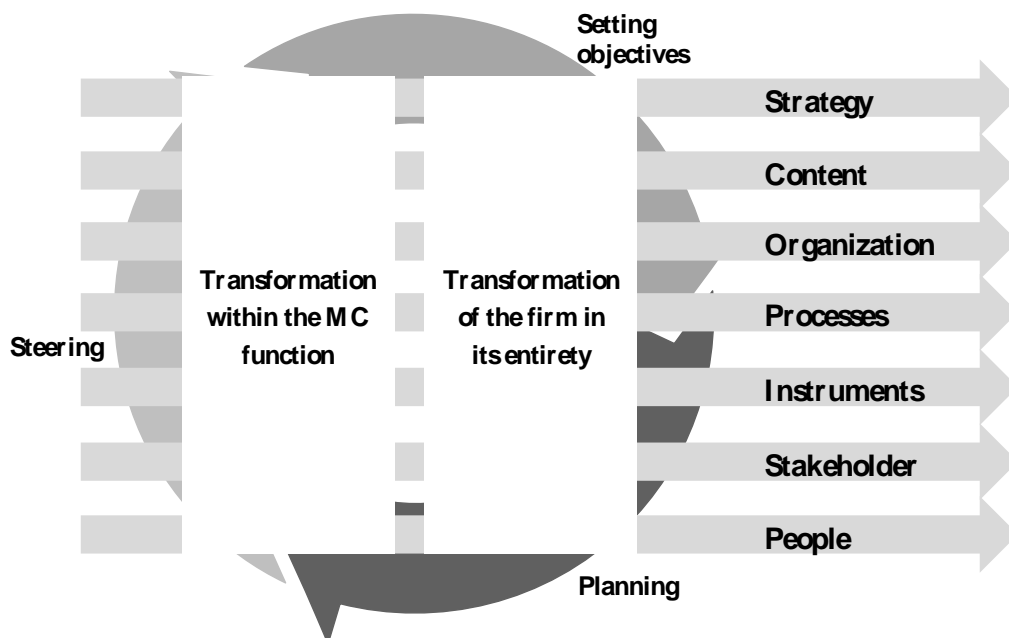


Figure 4. *The digital transformation control framework (DTCF)*
(Source: own illustration)

THE DIGITAL TRANSFORMATION CONTROL FRAMEWORK (DTCF)

The framework proposed in this section intends to provide a comprehensive approach to manage the very different facets of DT from a MC point of view. Given the current developmental state of the research, the framework here is of preliminary nature stimulating reflections, discussions leading to a further refinement of the framework.

Synthesizing and extending the findings of the literature review, the below described elements can be derived, which need to be considered in a coherent management approach towards DT from a MC

perspective. The above discussed elements (cybernetic cycle, a MC and company-wide perspective and individual corporate dimensions) can be combined to the following DT control framework (DTCF):

The framework addresses the major perspectives and developments within the MC function as well as with regard to the transformation of the entire firm. As indicated earlier, the MC function is especially challenged by the developments of DT and will need to transform its organization, processes and the applied instruments and technologies (e.g. Schäffer and Weber, 2019). Knowledge and competencies of employees can be considered as a core resource within these developments (Drerup, Suprano and Wömpener, 2018). In addition to this, the framework aims to cover the transformation of the entire firm, which leads to a consideration of multiple views and dimensions. This variety and complexity of the impact of DT on the firm is reflected in the proposal of the seven dimensions, which partly has been covered already by other models in the context of DT such as the four pillar model developed by Doukidis, Spinellis and Ebert (2020). It can be argued that managing the development of new digital or hybrid business models is of particular importance to firms, especially taking into account the recent developments due to the Covid-19 pandemic.

The considered dimensions within the DTCF represent the main areas, which need to be addressed in the course of DT. It is important to note that not all dimensions may be applicable or need to be considered within the DT of a specific company or a specific corporate function and hence the considered dimensions should be tailored to the individual requirements. The derived corporate dimensions can be briefly described as follows:

- Strategy: A digital strategy needs to be defined and aligned to the overall business strategy. Recent research indicates that most of the companies show deficits with regard to the formulation of a digital strategy (Schäffer and Weber, 2018, 2021; Becker and Schmid, 2020).
- Content: The dimension content is ultimately based on the defined strategy and refers primarily to the digital or hybrid business model, including the product or service offered to a customer.
- Organization: The organization represents the organizational structure and various hierarchies of a company and how these relate to each other as well as the formal decision paths.
- Processes: This dimension includes all procedures and processes to serve customer needs, which may primarily be external but with regard to administrative functions also internal. The quality of operations can be considered as a key competitive factor within a digital economy.
- Instruments: Instruments refer to methodologies and methods, such as classic or agile project management approaches and digital technologies and infrastructure as well as data quality (Knauer, Nikiforow and Wagener, 2020), which represent the base for the DT of the company.

- Stakeholder: Refers to all groups of people, which have a legitimate interest in the company primarily customers, suppliers and other partners such as service provider or freelancer. Employees are not considered within this dimension.
- People: Given the central role of employees for a successful DT, they are considered in a specific dimension covering their digital mindset and knowledge as well as their attitude towards change.

Given the importance of KPIs for a successful management of DT (e.g. Kollmann and Hensellek, 2017; Pampel, 2018; Reinhard, Rentz and Sommerfeld, 2020), for each relevant dimension a set of coherent and concise KPIs need to be developed. This can be exemplarily be illustrated for three selected dimensions as follows. The selection of the dimension is based on the importance of these, especially in early phases of DT. It is important to note that the final selection of KPIs tends to be individual to each firm, depending on the industry, the business model and the overall nature of the steering approach.

Strategy	Market, intended market position and target group	<ul style="list-style-type: none"> • Potential number of customers and users, market growth rates, upsell potential • Competition with freeware, service providers, start-ups • Novelty, innovativeness in the field (e.g. position in the product lifecycle)
Processes	Procedures to serve the customer needs	<ul style="list-style-type: none"> • Quality of operations (customer satisfaction, complaints, number of calls) • Efficiency (response times, Ø lead time to solve calls)
People	Digital mindset and knowledge	<ul style="list-style-type: none"> • Budget for digital trainings • Training intensity (digital training days / FTE) • Digital competence quota (digital FTE / required digital FTE)

Figure 5. *Exemplary KPIs for selected corporate dimensions of the DTCE*
(Source: own illustration)

We believe that the developed framework can contribute to the discussion on how to manage DT properly, which is an important challenge for all companies and given the pragmatic and practice orientation it may especially be applicable to SME contexts, which urgently need appropriate instruments to manage DT and face distinct challenges (e.g. Gassmann and Keupp, 2007; Pelletier and Cloutier, 2019; Becker and Schmid, 2020; Garzoni *et al.*, 2020; Peter, Kraft and Lindeque, 2020). The suggested preliminary framework already shows some advantages over many existing ones, although the practical implementation needs to be tested and the framework further refined. The following points, can be seen as some of the advantages, which already can be related to the framework:

- it may allow a comprehensive steering of DT in various settings and industries
- it considers a variety of corporate dimensions
- in its final condition it will offer a comprehensive set of KPIs
- it might be used in a flexible way
- it has a more practical look and feel

CONCLUSION

In this paper, we have discussed the implications of DT on MC and presented a framework to control DT from a MC perspective. The main contribution of our research lies in the integration of knowledge from the DT and MC domain, taking a new perspective on the topic in order to advance both, the digital transformation literature, and, the MC discipline. At the same time, we are confident that our framework may serve as a practical guidance to improve the management and control of DT initiatives in business firms.

We are aware that our research may have limitations. The framework presented in this paper is of preliminary nature based on literature review, taking into account the authors' professional experience. More research is needed, especially in order to evaluate the framework in terms of further specifications of its dimensions, as well as, its applicability to practice. To do so, future work should test the framework in real world settings by applying it to different types of companies and industries, for example in an action-oriented research design or multiple case study.

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CONSUMER EMOTIONAL RESPONSES TO CORPORATE SOCIAL IRRESPONSIBILITY: THE ROLE OF CONSUMER-BRAND RELATIONSHIP

Li, Lili; Tsai, Hsin-Ju Stephanie; Vazquez, Delia

Department of Materials. University of Manchester, UoM, Manchester, UK

ABSTRACT

Corporate social irresponsibility (CSiR) has been in the spotlight in recent years, especially in the field of business and management research. However, existing research focuses more on the consequences of CSiR, rather than the evaluation of how irresponsible corporate behaviour can lead to negative moral emotion (contempt, anger, and disgust) by consumer. By reviewing the literature on corporate social responsibility, CSiR, negative moral emotions and consumer-brand relationship, we set out two propositions: first, how perceptions of corporate irresponsible events influence negative moral emotions of consumers; and second, the role of consumer-brand relationship in affecting negative moral responses of consumers in the event of corporate irresponsible incidents. Subsequently, based on the literature review and propositions, we develop a preliminary conceptual framework of the role of consumer-brand relationship and how it affects consumers' negative moral responses to socially and environmentally irresponsible behaviours. The current study provides scholars and managers with better understanding of consumers' reactions to corporate irresponsibility. It also offers useful insights for managers who may have to face consumers' negative emotions resulting from irresponsible corporate behaviour.

Keywords: Corporate social responsibility; Corporate social irresponsibility; Negative moral emotions; Consumer-brand relationship

INTRODUCTION

Corporate social irresponsibility (CSiR) is a long-standing issue (Antonetti and Maklan, 2016), and has become a subject of greater public concern (Kotchen and Moon, 2012). There were a number of cases of corporate irresponsible behaviours in the last few years which came to the public attention. For example, Shell's oil spills in Nigeria resulted in up to 50% decrease in sales in some markets due to boycott (Smith, 2003). Another widely known example is Volkswagen, who used defeat devices on diesel cars, allowing cars with excessive emissions to pass the test (EPA), which resulted in almost a third of the company's market value being eliminated within a week after the incident (Rhodes, 2016). Thus, CSiR may have a significant negative impact on firms (Fleming, 2012, Cai et al., 2012, Godfrey et al., 2009, Hua et al., 2021, Antonetti and Maklan, 2016, Nardella et al., 2020).

The aim of this study is to analyse how consumer-brand relationship affect consumers' emotional response to CSiR behaviours. Given the growing concern about environmental irresponsibility (Liu, 2018) and socially irresponsibility (Sharpe and Hanson, 2021, Dharwadkar et al., 2021), we only focus on these two types of CSiR behaviours.

This study aims to address the following gaps in the literature. Firstly, despite the (assumed) negative impact of unethical behaviours, irresponsible actions by company have received limited attention in the literature until more recently (Swaen et al., 2017). The literature of corporate social responsibility (CSR) tends to focus on the corporations that are doing good CSR rather than the issue of CSiR (Campbell, 2007, Lange and Washburn, 2012, Lin-Hi and Müller, 2013), and especially how consumer respond to the corporations that engage in responsibility. Although previous studies have examined consumer reaction to CSiR, no research thus far has analysed how consumer-brand relationship affect consumers' emotional response to CSiR behaviours. Consumers who are closely connected to the brand are generally more loyal to the brand, this is extremely valuable for organisations (Fournier and Yao, 1997). Therefore, in respect to the effect of CSiR behaviours on companies, consumer response to CSiR is vital for academics and managers. Furthermore, this is the first study about consumer responses to CSiR behaviours to look at social and environment irresponsible behaviours separately.

The paper proceeds as follows. Section 2 offers a review of the extant literature and develops propositions. Section 3 provides the theoretical and practical implications, and also identifies the limitations of this research and directions for future research.

LITERATURE REVIEW

Corporate Social Responsibility

Previous studies mostly defined corporate social responsibility (CSR) as corporate social or environmental behaviour that exceeds the legal or regulatory requirements faced by the firm (Kitzmueller and Shimshack, 2012, Liu et al., 2020, Bardos et al., 2020). Several scholars have conceptualised CSR from multiple perspectives. Carroll (1991) posits that there are four responsibilities of a CSR model: ethical, economic, legal and philanthropic. Thus, CSR encompasses a range of different issues, including legal and regulatory, consumer protection, sustainability, social issues and corporate governance (Ferrell and Fraedrich, 2015). Siegel and Vitaliano (2007) defined CSR from a legal perspective as the actions undertaken by corporations that may promote positive societal values that are beyond legal requirements. For Hill et al. (2007), CSR refers to the moral, economic, philanthropic and legal activity of corporations that have an impact on the relevant stakeholder's quality of life.

Corporate Social Irresponsibility

CSiR generally refers to corporations not paying attention to society and environment (Lange and Washburn, 2012). A core objective of CSR is to guard against corporate engagement in unethical behaviours through avoiding bad conduct and instead engage in good conduct (Lin-Hi & Müller, 2013). The implication of CSiR is the opposite of the CSR, (Lange & Washburn, 2012), which is considered to be acting irresponsibly; this, in turn, has negative implications for stakeholders, such as potential harm (Lin-Hi & Müller, 2013).

Environmentally Irresponsible Behaviour

Corporate environmental irresponsible behaviours refers to corporate involved in environmentally unfriendly incidents, including waste generation, industrial emissions, and overconsumption of unrenewable energy (Wu, 2014). It can be seen as a hazard to the public, which causes severe economic, environmental, aesthetic and negative social consequence (Santos et al., 2019) which may lead to legal prosecutions for guilty parties (Agency, 2008). Grappi et al. (2017) found that toxic chemical scandals have a negative impact on brand attitude. More specifically, there is a positive correlation between the severity of toxic chemical scandals that are exposed by non-governmental organizations, and attribution to the brand, which subsequently has a greater negative impact on brand attitudes. They also stressed that consumers' attitudes towards brands that involve unethical behaviour will affect their purchase intentions in the near future. In the same way, Grimmer and Bingham (2013) emphasised that consumer have decreased intention to purchase a product if the corporation is engaging in environmental irresponsible behaviour. Given that an individual's moral identity is an underlying mechanism for participation in environmental behaviours, Jia et al. (2017) argues that these actions are driven by both self-transcendent (benevolence-care and universalism-concern) moral values and motives. These behaviours are exhibited as disgust and vigilant ethical behaviour by consumers when they are faced with environmentally irresponsible companies.

Socially Irresponsible Behaviour

Socially irresponsible behaviour refers to community is harmed by company, such as violation of community norms (Grappi et al., 2013). With regards to social irresponsibility, many firms have been criticised by stakeholders for social transgressions of their business practices, because CSiR is an incident caused by corporations that harm the social good such as human rights, unethical advertising, and unfair trade (Kang et al., 2016).

Stakeholder sanctions are commonly taken after firms' socially irresponsible event with the aim to punish them and prevent similar events from occurring again (Kölbel et al., 2017). Stakeholder sanctions could take a number of forms such as prosecution, boycotting, negative word of mouth (NWOM) and supply chain disruptions (Baron and Diermeier, 2007, Kähr et al., 2016, Sweetin et al.,

2013). NWOM in turn leads to damage to corporate reputation and lower sales. To maximise retaliation, they may attempt to convince other consumers not to purchase products from the company that engage in socially irresponsible behaviour as well (Bougie et al., 2003).

Negative Moral Emotions - Contempt, Anger and Disgust

Emotion is a conscious mental reaction which individuals experience as strong feeling and physiological changes (Elfenbein, 2007). Moral emotions can be defined as “emotions that go beyond the direct interests of the self”, which means they are “linked to the interests or welfare either of society as a whole or at least of persons other than the judge or agent” (Haidt, 2003, p853). Tangney et al. (2007a) emphasise that, despite the importance of moral emotions, it is frequently a neglected aspect of an individual's moral apparatus; this link could potentially be paramount to the understanding of an individual's behaviour in the context of moral area. They also indicate that when individuals self-reflect, moral self-conscious emotions immediately punish the behaviour, as moral choices and behaviour are significantly influenced by moral self-consciousness (Tangney et al., 2007b). Negative moral emotions include contempt, anger and disgust. Izard (1977) termed this as hostility triad of emotion, while Haidt (2003) approach them as other condemning emotions, which are considered to be mainly to prevent the threat towards social cohesion resulting from selfish behaviour (Hutcherson and Gross, 2011).

Relationship Between CSiR to Contempt, Anger and Disgust

Consumer engender negative moral emotions when they perceive CSiR (Grappi et al., 2013). Appraisal processes is a mechanisms of emotion activation (Ellsworth and Scherer, 2003, Horberg et al., 2011) and thus, the appraisals of CSiR evoke negative moral emotion which, in turn, cause different types of behaviour (Antonetti, 2020).

Corporate environmentally irresponsible behaviour results in degradation of environment and violations of purity or divinity. Thus, consumers will feel disgusted toward corporate regarding to Haidt (2007). Consumers believe that their living environment is threatened due to environmental degradation and pollution, which will trigger their anger. Because individual feel anger when their autonomy is violated and face the behaviours that can be seen threats to self (O'Gorman et al., 2005). Similarly, damage to the environment is a violation of the community, and consumers will contempt corporate that involved in environmental irresponsibility (Rozin et al., 1999). Hence, we formulate the following proposition.

P1a: Perception of an environmentally irresponsible events will influence feelings of contempt, anger, and disgust.

P1b: Perception of a socially irresponsible events will influence feelings of contempt, anger, and disgust.

The Role of Consumer-Brand Relationship

Prior research have found that emotion towards the brand is essential to improve the quality of the consumer-brand relationship, because once consumers have feelings for the brand, they will begin to attach to the brand and commit to it (Thomson et al., 2005). Meanwhile, consumers' strong emotions towards the brand contribute to long-term relationship between consumers and the brand (Carroll and Ahuvia, 2006). Brand love, in turn, is related to greater feelings of brand loyalty (ibid).

Once customers have established a committed relationship with the brand, they may become desensitised to irresponsible corporate behaviour. Loyal customers are more likely to attribute the perceived brand failure to external causes, rather than internal causes and would even insist on trusting the brand in the face of behaviours that are usually regarded as betrayal by other brands (Hess, 1995), they tend to be more tolerant and forgiving following brand failure. Research indicates that a strong connection between consumer and brand may force consumers to disregard negative brand information so as to defend their self-esteem, allowing the positive attitude of consumers towards that brand to continue (Fournier, 1998, Lisjak et al., 2012, Cheng et al., 2012). Personal connection between the individual and the brand can explain why consumers are tolerant and forgiving towards negative information about a company (Cheng et al., 2012). Hence, we formulate the following proposition:

P2a: Consumer-brand relationship is likely to weaken the impact of environmentally irresponsible behaviour on consumers' negative moral emotions.

P2b: Consumer-brand relationship is likely to weaken the impact of socially irresponsible behaviour on consumers' negative moral emotions.

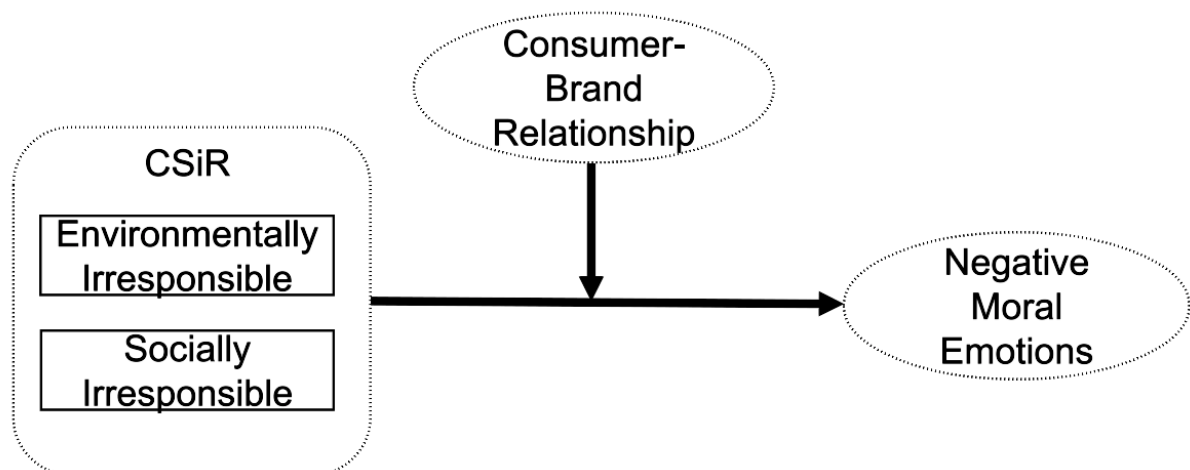


Figure 1: *Conceptual framework*

DISCUSSION

Theoretical Implications

Up to now, there have been several investigations into the consumer emotional reactions to corporate responsibility. These influential studies have confirmed that positive moral emotions such as empathy, admiration, gratitude and pride can mediate the effect of CSR activities on consumer brand advocacy (e.g., Xie et al., 2019, Castro-González et al., 2019). Corporations' positive activities will cause consumers to have positive moral emotions and attitudes, which are automatic personal responses. Because positive emotions are a state of pleasure, consumers are more willing to share their happiness when they are in this state, and thus respond positively to corporations that engage in CSR activities (Xie et al., 2019). In our study, we give initial insights into this research void by investigating the under-researched area of the role of consumer-brand relationship in response to unethical CSiR behaviours. We propose that perception of an environmentally and socially irresponsible event will influence felt contempt, anger, and disgust. However, consumer-brand relationship has a negative impact on consumers' moral emotions responses to CSiR behaviours.

Practical Implications

This research has managerial implications. Companies should devote more resources to environmental responsibility because they regard environmental responsibility as an additional cost toward the company. Meanwhile, they should regard CSR as an intangible asset of the company as well, because CSR would encourage consumers to have positive emotions and become more loyal to the company. Moreover, this article provides useful insights for company managers who have to deal with outpours of negative public moral emotions in CSiR incidents.

Limitation and further research

The present study has limitations which can inform the direction of further research. Certain individual difference variables may also play a role in regulating consumer responses to CSiR behaviours. For instance, the intensity of contempt, anger and disgust may be affected by consumers' understanding of the CSiR incident. Thus, further investigations should examine if consumers' irresponsible understanding of CSiR affect their reaction to CSiR.

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SEGMENTING CONSUMERS BASED ON REASONS FOR PURCHASING LOCAL TRADITIONAL FOOD PRODUCTS

**Mamalis, Spyridon; Kamenidou, Irene (Eirini); Bara, Evangelia-Zoi; Pavlidis, Stavros;
Mylona, Ifigeneia**

Dept. of Management Science and Technology, International Hellenic University, Kavala, Greece

ABSTRACT

Production regions are strongly connected with traditional and local foodstuffs which when registered are considered as goods with geographical indications. Amongst these geographical indications are the local traditional products that signify an agricultural production area which is dynamically growing. This paper presents a research referring to the factors that lead consumers to purchase local traditional food products. By the means of a questionnaire and applying a convenience sampling frame, 400 consumers took part in this research. Findings reveal that the main reasons for purchasing and consuming local traditional products are to support the local producers, to promote their region of origin, and because they consider them tastier than the products that are produced elsewhere. Factor analysis extracted three dimensions of reasons for purchasing local traditional products: "Higher quality products", "Production, appearance and quality", and "Support of the stakeholders". Segmentation based on K-Means Cluster analysis provided with two groups of consumers, the "Indifferent occasional purchasers" and the "Local traditional buyers.". Marketing communication strategies should be implemented to arise awareness of the benefits of consuming local traditional food products, which will arise its demand. The originality of this research is that it deals with segmentation behavior towards local traditional food products which is an understudied topic.

Keywords: Local traditional food products, Segmentation, Marketing communication

INTRODUCTION

This paper deals with local traditional products (LTP) and consumer buying behavior. Specifically, it explores the factors that influence consumers' purchasing behavior towards local traditional food products (LTFP), it segments participants according to their behavior, and lastly, it profiles the derived segments.

In recent years there has been a growing demand for differentiated products, which are distinguished by the rest due to their distinct cultural characteristics or their environmental impacts throughout the agri-food chain (Ilbery and Kneafsey, 2000). Moreover, consumers are increasingly interested in the

place and process of food production, not only for health and safety reasons but also in the context of satisfying a nostalgic tendency for a past period of actual products (Autio *et al.*, 2013). These products include quality products such as organic, high nutritional value products, as well as products of origin (Barham and Sylvander, 2011).

It is generally accepted that the term 'traditional products' refers to products made from specific raw materials and/or a recipe that has been known for a long time and/or by a specific process (Cayot, 2007). Traditional products have been shown to contain unique traits, which distinguish them as a separate product from another that may resemble it and/or fall under the same category of use of the traditional ingredient, traditional composition and the mode of production and / or processing (Trichopoulou *et al.*, 2007). Traditional products are passed down from generation to generation, prepared in a specific way according to the gastronomic heritage of the area and are distinguished by their distinctive organoleptic characteristics (Trichopoulou *et al.*, 2007). There are different definitions of traditional products (Bonadonna *et al.*, 2017). The definition of traditional products in accordance with the European Union and EC Regulation 509/2006 denotes: "Traditional means proven usage in the community market for a time period showing transmission between generations; this time period should be the one generally ascribed as one human generation, at least 25 years" (EU, 2006). Moreover, Guerrero *et al.* (2009, p. 348) state "...a traditional food product from the consumers' perspective may be defined as "a product frequently consumed or associated with specific celebrations and/or seasons, normally transmitted from one generation to another, made accurately in a specific way according to the gastronomic heritage, with little or no processing/manipulation, distinguished and known because of its sensory properties and associated with a certain local area, region or country".

Moreover, the European Union states "the agricultural sector has to place quality before quantity and that the promotion of certified local traditional products and organic farming should be the underlying principle of a European agricultural policy geared to sustainable development" (Eur-Lex, 2000). Local traditional products (LTP) are viewed as the key elements of the specified regions, and they can be utilized as symbols of the areas (Kohsaka and Uchiyama, 2019). Dragomir *et al.* (2017) state that LTP are produced only in specific areas of the European Union, are protected by law (name and production) and are part of the areas' trait (natural and human).

LITERATURE REVIEW

There is a bulk of research connected to food products and geographical indications (Teuber, 2011; Pantano, 2011; Becker, 2009; Moschini *et al.*, 2008; Ribeiro and Santos, 2008), of which many are focused on protected denomination of origin -PDO (Kos Skubic *et al.*, 2019; Mancini *et al.*, 2019; Vecchio and Annunziata, 2011; Belletti *et al.*, 2007). Another geographical indicator regarding studied are the

protected geographical indication- PGI products (Vecchio and Annunziata, 2011; Belletti *et al.*, 2007; Tregear *et al.*, 2007). Also, the focus on traditional speciality guaranteed-TGI is studied, though not to the extent of the previous studies (Gatto, 2019; Tosato, 2013; Verbeke *et al.*, 2012), while the geographical indication of spirit drinks and aromatised wines (GI), is the quality indicator relatively studied less (Gal and Jambor, 2020; Čačić and Kljusurić, 2017; Ozgur, 2014).

While research exists referring to consumer behavior, and local traditional products (Tselempis *et al.*, 2020; Rahman *et al.*, 2018; Dragomir *et al.*, 2016; Wang *et al.*, 2015; Jung and Hwang, 2014; Vukasović, 2014; Pantano, 2011), focusing on segmentation based on motives of consumption/purchasing and local traditional products is understudied, to our knowledge. Fricz *et al.* (2020) explored Hungarians behavior (N=1000) towards local food and segmented consumers based on their behavior, whereas five clusters derived the: Fan (I acknowledge it and buy it); Marketgoer (I acknowledge it, but I only buy fresh vegetables); Theoretical fan (I acknowledge it, but I do not buy it); Rejective (it is not better, I do not buy it). Silvestri *et al.* (2019) examined consumer segments based on preference and expectations towards the Italian traditional food grated Parmigiano Reggiano cheese, and segmented consumers based on their behavior. Four clusters were identified: geographical origin and packaging (cluster 1); price, brand and quality certification (cluster 2); all sensory attributes (cluster 3); and a combination of sensory attributes with price, brand, and quality certification (cluster 4). Jaďud'ová *et al.* (2018) explored consumer behavior towards traditional regional products. Through two-step cluster analysis they found two consumer clusters in terms of preference for regional foods (segmentation criteria: buying domestic food, purchasing regional foods, awareness of regional labelling, food composition). The 1st cluster is named the regional branded consumers (57.7%) and the 2nd cluster is named the priced consumers, representing the 42.3% of the sample. Marcoz *et al.* (2014), segmented consumers (N=220 from Aosta, Milan, Switzerland and Greece) based on behavior towards Fontina cheese a local PDO Italian product. Cluster analysis (K-means) resulted in a five-cluster solution: Guarantee seeking, Region-oriented, Demanding, consumers, Official label confident, and thrifty. Giraud *et al.* (2013) investigated consumer preferences toward the local traditional fresh cow cheese 'Mladi Sir' and segmented participants based on behavior. Four consumer clusters derived: those focusing more on local origin; those focusing more on scale of production (on-farm and small dairy); those focusing more on low prices and the fourth those preferring high prices and industrial products.

MATERIAL AND METHODS

An online questionnaire was created to carry out the survey. The questions of the survey tool were based the works of Perrea *et al.* (2015); Koutroulou and Tsourgiannis (2011); Onozaka *et al.* (2010); and Krystallis *et al.* (2007). The question regarding the motives to purchase local traditional products were

rated on a five-point Likert scale 1 = Completely Disagree, 2 = Disagree, 3 = Disagree / Agree, 4 = Agree, 5 = Completely Agree. Additionally, questions referring to participants socioeconomic and demographic characteristics were incorporated., the questionnaire includes seven (7) multiple choice questions regarding the demographics of the respondents. The questionnaire was distributed via internet and by this way 400 people participated in the survey, over a three-month period. This sample size is considered adequate for the aim of the study as well as for the data analysis realized. Data analysis consisted of descriptive statistics, factor and K-Means cluster analysis.

Reasons for purchasing LTFP	1	2	3	4	5	MS
Support local producers	1.5	2.0	12.5	37.0	47.0	4.26
Promote their region of origin	2.0	1.5	13.5	43.0	40.0	4.17
Tastier than the products that are produced elsewhere or in a conventional manner	1.0	6.5	16.5	48.5	27.5	3.95
Authentic	3.0	4.5	21.5	40.0	31.0	3.92
Better nutritional value	1.5	3.0	21.5	51.0	23.0	3.91
Higher quality than non LTFP	2.0	3.5	30.0	33.0	31.5	3.89
Healthier than the products that are produced elsewhere or in a conventional manner	3.0	2.5	19.5	53.5	21.5	3.88
To strengthen the local market	2.5	11.5	23.0	31.5	31.5	3.78
Place of production	2.5	8.5	29.0	37.0	23.0	3.70
Safer than the products that are produced elsewhere or in a conventional manner	2.5	7.5	25.5	48.0	16.5	3.68
Production method	4.0	7.5	29.5	39.5	19.5	3.63
Better appearance	3.0	8.0	39.0	34.5	15.5	3.52

Table 1. *Reasons for purchasing LTFP (%)*

RESULTS

Demographic profile of the subjects

Women were over-represented in the research, consisting of 64.5% compared to men (35.5%). As to age, 30.5%, 39.5%, 9.5% and 11.5% belong in the age categories 18-25, 26-35, 36-45 and 46-55 respectively. Lastly, 9.0% were more than 55 years old. As to marital status, 35.5% were married; 60.0% were single and 4.5% were divorced or widowed. Additionally, 68.5% did not have children (<18 years old) in the household. Referring to education, 25.5% had compulsory education (Lyceum), 58.0% had a bachelor's degree, and 16.5% had a post-graduate degree. Regarding profession, 37.5% were employees (private or government), 16.5% were businessmen, 5.5% were on pension and 40.5% were dependent from others (students, housekeepers, unemployed). As to family net income per month, 82.5% had an

income up to 1000,00€, 17.0% had income 1000.01-2000.00 €, and only 0.5% had an income over 2000.00€ per month.

Consumption and purchasing behavior of local traditional food products

Participants were asked how frequently they purchase local food products. Results revealed that 35.0% purchase three or more times per week, 23.5% purchase rarely local products (several times per year), 23.0% purchase 1-2 times per week, and 18.5% purchase them 2-4 times per month. Consumers were given a list of eighteen local traditional products and were requested to answer if they purchase them. The three top LTFP purchased by participants was olive oil (63.5%), honey (68.0%), and feta cheese (68.0%). Table 1 provides with the reasons for purchasing LTFP in percentages (%) and mean scores (MS).

As Table 1 presents, no reason for purchasing LTFP has $MS > 4.5$ or $MS < 3.50$. Table 1 also reveals that the three main reasons for purchasing and consuming LTFP is to support the local producers, to promote their region of origin, and because they consider them tastier than the products that are produced elsewhere or in a conventional manner. Both high rated reasons are extrinsic factors related to the community and not to the product itself.

	I purchase LTFD because the LTFP is/has/offs/are...	Loading on factor		
		1	2	3
Q15_1	Healthier than the products that are produced elsewhere or in a conventional manner	.834	Production, appearance and quality	
Q15_2	Safer than the products that are produced elsewhere or in a conventional manner	.864		
Q15_3	Better nutritional value	.777		
Q15_4	Tastier than the products that are produced elsewhere or in a conventional manner	.788		
Q15_5	Higher quality than non LTFP	.773		
Q15_6	Promote their region of origin	Higher quality products		.752
Q15_7	Support local producers			.690
Q13_1	To strengthen the local market			.721
Q13_2	Production method		.775	Support of the stakeholders
Q13_3	Place of production		.758	
Q13_4	Better appearance	.730		
Q13_5	Authentic	.526		

Table 2. Results of factor analysis of items referring to purchase of LTFP

Factor analysis

The 12 items representing the reasons for purchasing LTFP were factor analyzed to reduce the variables into a smaller set and proceed to further analysis. Implementing exploratory factor analysis with varimax rotation and with the criteria of Eigenvalues > 1 , three dimensions were extracted ($KMO=0.880$; $BTS=2672.843$; $df=66$; $p=0.000$) accounting for 68.6% of the total variance. The first factor accounting for 32.3% and is called "Higher quality products" because the items incorporated have to do mostly with these elements. The second factor accounts for 19.6% of total variance and is named "Production,

appearance and quality” and the third accounts for 16.7% and is named “Support of the stakeholders” because the items included have to do with these aspects.

Market segmentation

The mean factor score (MFS) and standard deviation (std) of each dimension was calculated in order to use it for further analysis. The MFS (std) of each dimension is: MFS1= 3.87 (0.77), MFS2= 3.85 (0.74), and MFS3= 3.98(0.72). These MFS were used in K-means cluster analysis in order to produce market segments. K-means cluster analysis provided with two meaningful clusters, whereas ANOVA tests revealed that they differ in all dimensions. Table 3 provides with the two clusters, their final cluster centers (FCC), and ANOVA results (F, sign).

Dimensions	Cl1	Cl2	F	sig
Higher quality	2.67	4.17	609.193	.000
Production, appearance and quality	2.78	4.12	443.326	.000
Support of the stakeholders	3.32	4.15	110.632	.000

Table 3. *Segmentation based on reasons for purchasing LTFP*

To examine the composition of the derived factors, cross-tabulation with external variables (gender, age, marital status, education, profession, and net family monthly income) for each cluster was implemented.

The results of the χ^2 tests indicate that there is no statistically significant difference between clusters when it comes to the participants education ($p=0.865$) and their income ($p=0.850$), while in all the other cases statistically significant differences exist (Table 4).

Cluster Characteristics	Cl1: N=80	Cl2: N=320
Gender $\chi^2=3.941$, $df=1$, $p=0.047$		
Male	45.0	33.1
Female	55.0	66.9
Age $\chi^2=14.704$, $df=4$, $p=0.005$		
18-25	30.0	30.6
26-35	52.5	36.3
36-45	10.0	9.4
46-55	7.5	12.5
56+	0.0	11.3
Marital status $\chi^2=16.682$, $df=2$, $p=0.000$		
Married	17.5	40.0
Single	80.0	55.0
Divorced/ Widowed	2.5	5.0
Education $\chi^2=0.298$, $df=2$, $p=0.865$		
Obligatory (up to Lyceum school)	27.5	25.0

Graduate	57.5	58.1
Postgraduate	15.0	16.9
Profession $\chi^2=18.698$, $df=4$, $p=0.001$		
Dependent on others (student, housekeeper, unemployed)	50.0	38.1
Businessman/Businesswoman	20.0	15.6
Public employee	0.0	12.5
Private Employee	30.0	26.9
On pension	0.0	6.9
Net Monthly Family Income (€): $\chi^2=0.324$, $df=2$, $p=0.850$		
<1000.00	82.5	82.5
1000.01-1500.00	12.5	13.8
1500.01+	5.0	3.8

Table 4. *Cluster profiles*

Cluster 1: The “Indifferent occasional purchasers”. This group has 80 participants, i.e., consisting of 20% of the sample. These consumers have MFS <3.5 and >2.6 and are in the indifferent category. Even though they purchase and consume LTFP, these variables are not the ones that represents their reasons to do so. Thus, some other variable, not existing in the study, might be the ones that represent them. In this cluster the females slightly overrepresented compared to males and more than the half of the sample is in the age range 26-35 (52.5%) and they too are highly educated holding a university degree (57.5%). This segment also has 80.0% single subjects and 50.0% of them are dependent on others (student, housekeeper, unemployed). Lastly the vast majority (82.5%) have family income up to 1000.00 euros per month.

Cluster 2: “Local traditional buyers.”. This group incorporates 320 consumers, consisting of 80% of the sample. These consumers have positive attitudes towards all three dimensions/ reasons for purchasing and consuming LTFP, with all FCC>4.00. Thus, they purchase local traditional foods because of their nutritional value and sensory elements, their production methods and area, appearance, and quality, and in order to support all stakeholders involved. In this cluster the females consist of two-third of the cluster’s participants. Additionally, two age groups stood out, the 18-25 (30.6%) and the 26-35 (36.3%), with a considerate percentage of married individuals (40.0%). Moreover, they are as the first cluster highly educated with 75.0% holding at least a bachelor’s degree. Furthermore, about the half of the sample (46.3%) are individuals that have a monthly salary (public employee, private employee and on pension). Lastly the vast majority (82.5%) have family income up to 1000.00 euros per month as the segment No.1.

DISCUSSION-CONCLUSIONS

This paper had as its aim to explore the reasons for purchasing LTFP and to segment consumers based on these reasons. For this to be achieved, a quantitative research was carried out involving 400 consumers. The three top LTFP purchased by participants was olive oil, honey, and feta cheese. These results are partially in line with the research of Skalkos et al. (2021), who found preference for local food in descending order regards to cheese, other dairy products, wine, honey, herbs, pasta, legumes, and olive oil.

Main reasons for purchasing local LTP is to support the local producers, to promote their region of origin, and because they consider them tastier than the nonlocal traditional food. For variable reduction purposes, factor analysis was applied, reducing items to three manageable new variables. Market segmentation produced via K-means cluster analysis two groups of consumers, the “indifferent occasionally purchasers” and the “local traditional buyers”, which may be targeted accordingly through different marketing communication schemes.

Specifically, the first group, the “indifferent occasionally purchasers” justifies its behavior because the percentage of men compared to women is higher. Additionally, they have the highest percentage of single participants (80%), dependent on others (such as university students), are younger (82.5% ≤35 years old) and is the lowest income group compared to the “local traditional buyers”. These characteristics justify the indifference and occasional purchase of TLF. On the other hand, the second group, has the largest percentage of females (66%), married, older participants with higher income. These characteristics also justify their behavior.

Previous research has shown that women are more considered about products with geographical indications and local products compared to men (Cholette et al., 2013; Guerrero et al., 2009), while they seem to be more nostalgic (Sedikides et al., 2015). Additionally, older subjects prefer food with geographical identification as compared to younger subjects (e.g., Grunert and Aachmann, 2016; Feldmann and Hamm, 2015),

The result of this study as regards the segments cannot be directly compared with other studies since the questions incorporated as total were not drawn solely from one article. Thus, it is inline partially with the works of Jaďudová et al. (2018) whereas one of his consumer clusters was the “regional branded consumers” as well as the work of Marcoz et al. (2014), where one of his five-cluster solution was the “Region-oriented” segment, referring to consumers who purchase mainly LTFP.

IMPLICATIONS

From a marketing point of view, more emphasis could be placed on their origin to better promote local products to be highlighted either in product packages or in advertising campaigns (television, radio,

print and online advertising). The target group should be the young consumer segment since they are the future of every country, and they will also define through their behavior their future family's behavior too. Thus, a high exposure rate on social media platforms where young people generally visit, with focused messages would help revise attitude and purchase intention. Such focused messages could enclose the characteristics of the products or the future benefits from consuming them or losses from not consuming them. Example of losses presented regards income cutoffs or job unavailability in the region due to preferring imported products and not supporting the local economy.

RESEARCH LIMITATIONS AND FUTURE RESEARCH

The main limitation of the survey is the sample size of 400 people, as well as the fact that the survey is aimed at Greek consumers who have used LTP at least once and are internet users. Anyone who did not have access to the internet could not access the questionnaire too. Thus, there is a limitation of the sample, as not every consumer is able to complete the questionnaire. Finally, there was a restriction on the nationality of the participants. The questionnaire was written in Greek only for Greek consumers. The questionnaire has not been translated for the purpose of being filled out by tourists, who may have visited the country and tried some local traditional products. Future surveys could eliminate these limitations and yield useful results that will show other consumers' view of LTFP, either tourists or consumers who have not consumed LTFP. In this way, we could shed some light on the future actions of support and promotion of LTFP, with the aim of expanding the consumer market.

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CO-OP ICON

Maniatis, Antonios

Captains' School, Merchant Navy Academy of Macedonia, Nea Mihaniona, Greece

ABSTRACT

Co-ops constitute a sui generis type of business, whose idea, values and principles, as elaborated in 1844, travel the world over, following no specific pattern. The cooperative concept began to be internationalized in the 19th century, in which the tendency to adopt ad hoc legislative dispositions emerged. The twentieth century was marked also by the explicit consecration of co-ops in constitutions. The pioneer Mexican Constitution incorporated in 1917 the already recognized institution of co-ops in an emphatic way. The 1920 social Constitution of Peru made a reference to co-ops but there is not necessarily a gradual constitutional evolution at national level, as it has been proved by Peruvian constitutional history. A century later, co-ops keep being a social economy alternative to societal types being based on capital, despite the existence of anachronistic traditions, exemplified by forced co-ops which have been explicitly permitted in the Greek legal order, from the 1952 Constitution to date. Although co-ops are not exempted from important institutional problems, this version of the right to association is an authentic icon in the light of sustainable development. The current research is original worldwide as it is the unique to have made a general overview of co-ops throughout global constitutional history, let alone in correlation to human rights beyond the right to association. On the basis of its findings, it is recommended to promote the nature of co-ops as carriers of paideia in both aspects of this term, namely education and culture.

Keywords: civil and agricultural cooperatives (co-ops); constitutional consecration of cooperatives; co-op icon; education; International Cooperative Principles, social economy

INTRODUCTION

Cooperative, commonly known as “co-op”, is a type of society having as members private individuals or legal persons under private law. It is about a sui generis kind of business, far away from the doctrine “Business as usual”. Indeed, the classical model of co-ops as a general rule has some differences from the concept of for-profit organizations, although especially civil co-ops are very likely to be for-profit legal persons. In other words, restrictions or even prohibitions related to the pursuit of profit are usually existent in the legal framework of agricultural co-ops whilst there is a tendency to get rid of those restrictions, as it has been recently the case of the Greek legal order.

The current study takes an approach to the entire phenomenon of co-ops from a historical and comparative point of view, on international scale. It highlights especially their profile in the framework of social economy, in the current era of globalization.

The main hypothesis of this research is the following:

We suppose that co-ops deserve an explicit consecration in the formal Constitution of States, particularly in correlation to human rights beyond the right to association.

THE INITIAL ERA OF NORMS ON CO-OPS: 1844-1945

The Rochdale Society of Equitable Pioneers – which was registered on 24 October 1844 and opened its first store on 21 December of the same year in Rochdale, near Manchester, is almost universally regarded as the first structured manifestation of that kind of business organization which the title and substance of “cooperative” have been referred to until today (Fici, 2013).

From mid-nineteenth century and on, the idea, values and principles of co-ops, as elaborated in 1844 by the Rochdale Pioneers travel the world over, following no specific pattern, undergoing multiple changes and inspiring at least as many cooperative laws as there are jurisdictions (Henrÿ, 2013). The doctrine highlights in that eloquent way the phenomenon of pluralism and mutability of co-ops, without omitting to localize the main feature that they have in common: The common denominator of the laws on the matter is that they distinguish co-ops from other business organizations, especially from stock companies (Henrÿ, 2013).

In Portugal, the first cooperative law appeared in 1867 and provided co-ops with a distinct legal status but remained in force for a short time (Namorado, 2013). In 1888 co-ops were subsumed under the new Commercial Code, where they were considered as a special type of commercial company (Namorado, 2013).

As of the beginning of the twentieth century cooperative laws start falling into the following broad categories:

- Capitalist states (liberal economies, industrialized countries);
- Socialist countries (planned economies);
- Other countries (developing economies, so-called developing countries) (Henrÿ, 2013).

Co-ops and more widely people's ways of production were historically underestimated or even turned down by Communist Parties (Meleti, 2004). The allocation of the land among farmers was also underestimated, as far as the establishment of socialism is concerned. For instance, the distribution of land among the Russian people enacting a professional role in the field of agriculture, which was held through the revolution of October 1917, was labelled by the Communist Party as a bourgeois revolution. The Party did not realize that the relations among farmers were not based on exploitation

but were incorporated in the community, consisting in equality and being able to be related to the perspective of socialist relations of production (Meleti, 2004).

Besides, the third category of cooperative laws comprises the laws in most of the twentieth century colonies and later those of the independent states (Henrj, 2013). In these countries cooperative norms preceded co-ops. Just the opposite, in developed countries, such as the UK, the emergence of co-ops has constituted an informal phenomenon, based on the law on societies. The remark on the priority of the legislation is valid to a certain extent also for the countries in Central and South America. This also explains why in these countries co-ops were instruments for developmental purposes, as they were for political purposes in the planned economy countries (Henrj, 2013).

The Peruvian cooperative movement started to develop as of the mid-twentieth century as a result of the Canadian and American experiences related to savings and credit co-ops that were promoted by the Catholic Church (Torres Morales, 2013). The most important regulatory document is the Commercial Code of 1902 citing that co-ops (production, credit, or consumer) would only be considered trading companies that were subject to the provisions of such a Code, *"...if they were devoted to commercial acts different from mutual aid, or if they became companies with a fixed premium"* (Torres Morales, 2013).

Co-ops seem to have acquired a constitutional status for the first time worldwide in the legal order of Mexico, as far as it is known. At first, there was a recognition at the inferior level, namely in the third Commerce Code, of 1889. Congressmen did not forget co-ops in the 1917 Constituent Congress mentioning them in the 28th and 123rd articles of the Republic's General Constitution, both currently in vigor (Rojas Herrera, 2013). These articles in general terms state that production co-ops do not constitute monopolies when selling directly to foreign markets (Rojas Herrera, 2013). The classist spirit of the Congress is comparable to the spirit of article 56 of the 1920 Peruvian Constitution, which states that *"The State shall encourage social solidarity and welfare, savings, and insurance institutions, and production and consumer cooperatives that are intended to improve the conditions of the working classes"* whilst the 1933 Constitution recognized this concept (Torres Morales, 2013).

Besides, the 1936 Constitution of the Soviet Union emphasized the institution of co-ops.

THE POST-WAR ERA OF CONSTITUTIONS ON CO-OPS: 1945-1989

The Constitutional Recognition of Three Sectors or Types of Property, Including Co-ops

Masses, from the 1840s and on, refer to the question of socialism through the creation of "social economy" (Meleti, 2004). This emergence was ridiculed, as it happened as for the Rochdale Society of Equitable Pioneers, but it was exempted from repressive approaches in the metropolitan societies, with the exception of authoritarian political regimes (Meleti, 2004). Just the opposite, the tendency to

establish social economy has been consecrated in the Constitutions. According to the doctrine, this is the case of the constitutional recognition of the civil right of assembly and association (Meleti, 2004). This opinion is well founded but it is to clarify that it is about two separate classical civil rights, from which only the second one is directly related to the phenomenon of co-ops.

The lack in repressive confrontation from democratic regimes and the consecration of the freedom to engage in association lead to the conclusion that dominant social classes accept social economy due to the fact that this concept implicates no direct danger for their economic interests, in opposition to revolutionary violence, and constitutes a democratic way of transforming society (Meleti, 2004). It is to underline that democracy constitutes a principle of major importance, which comes from the ancient city of Athens, which introduced it as "isonomy", namely equality of all citizens as for the possession of the State power, whilst some decades later, namely at the latest in 635 BC, the noun "democracy" emerged. The principle of people's sovereignty is undoubtedly the most important legacy of the ancient Greeks to humanity, which has been intensively marked by democratic culture, from the American and French Revolutions and on.

Many post-war Constitutions were endowed with dispositions on co-ops, but Egypt constitutes an emblematic case. Already in the 1950s, it began to preview in its Constitutions that institution. In its constitutional history, there has been a tradition to date, of explicit distinction of the property in the following three kinds: public, individual and cooperative. The 1971 Constitution not only previewed that trinity (with the cooperative ownership in the second position) but it emphasized co-ops. For instance, according to the second disposition of article 26, *"The law shall guarantee for the small farmers and small craftsmen 80% of the membership on the board of directors of the agricultural co-operatives and industrial cooperatives"*. The Egyptian constitutional approach to co-ops as the "third type of ownership", essentially as the "third sector" of national economy, could be compared to the remark that intellectuals, exemplified by Gide, attempted to incorporate the cooperative movement into the policy of capitalist development. That theoretical approach was based on the concept, which became a stereotype, that co-ops constitute a separate sector of economy, which coexists with the statal sector and the private one being marked by capital supremacy (Meleti, 2004). In that way, in 1976 the Constitution of the Portuguese Republic established a cooperative sector on equal footing with the public and private sectors on the basis of ownership of means of production (Namorado, 2013).

Anyway, socialist countries did not institutionalize this concept. For instance, the Soviet Union, in article 10 of its 1978 Constitution, kept previewing the property of cooperative organizations as one of the forms of the socialist property of the means of production, which constitutes the basis of the national economic system. However, it omitted the consecration of individual property, which had been authorized in the 1936 Constitution, as already signalized.

In a parallel way, the 1978 Chinese Constitution in article 5 stated that in the current stage there were mainly two forms of property of the means of production in the People's Republic of China, namely the socialist property of all people and the socialist collective property of working people. Although in article 45 it consecrates explicitly the freedom of association, it reserves a particularly marginal place for cooperatives. According to the second disposition of article 50, the State spreads gradually the cooperative medical and other services.

Besides, according to Article 29 of the 1979 Peruvian Constitution which replaced the 1933 Constitution, *"Enterprises are obliged to contribute to the maintenance of centers of education. The law sets the limits of this precept. The schools that operate in the industrial, agricultural or mining centers are supported by the respective owners or enterprises"*. Furthermore, article 30 cites that *"The State recognizes, helps and supervises the private, cooperative, communal and municipal education that will be non-profit"*. Although the specific phenomenon of co-ops being engaged in the educational sector is explicitly recognized, the educational mission of each co-op to its members, administrators and employees is not consecrated, at least directly, in the Constitution, as it would be normal particularly on the basis of the 1966 International Cooperative Principle *"Cooperative Education"*. Co-ops were recognized in article 112 as companies within a pluralist economic system whilst *"...the free development of the cooperative movement and the autonomy of cooperative companies"* was encouraged and protected, in article 116 (Torres Morales, 2013). Under the influence of that Constitution, the second cooperative law was adopted, called *"New General Cooperative Law"*.

Greek Constitutions: The Capitalist Way of Forced Co-ops

The 1952 Constitution of Greece was the first Constitution to make a reference to co-ops and positivized the compulsory ones, which had been previewed by law, about two decades earlier, for instance in the matter of the agricultural co-ops of the famous wine of Samos. In article 11, previewing explicitly the right of Greeks to association, it makes a reference to *"cooperative"* without meaning the (commercial) form of cooperative society, at least in a specialized way, but it takes a rather vague approach to unions of persons, including syndicates. In a parallel way, there is an ad hoc disposition on co-ops (in the common sense of Commercial Law institutions), outside the Bill of Rights. In the unity of articles entitled *"General dispositions"*, article 109 cites that co-ops, agricultural or civil, are under the protection of the State, systematically taking care of their development. According to the interpretative declaration under this article, *"The establishment of a forced cooperative by law is not contrary, as such, to the Constitution"*.

Not only did the 1975 Constitution maintain the norm on forced cooperatives but it *"promoted"* it into a disposition of article 12, which institutionalizes co-ops in a rather detailed way in the framework of the general right to association. An opinion has been formulated, according to which the

establishment of a co-op results from the exercise of the constitutional right of economic freedom, upon article 5 par. 1, not from the exercise of the right to association (Tsouramanis, 2004). However, although the provision on the economic freedom is original in the Greek constitutional history, the right to create a co-op has not to do mainly with that general right but to the specific right of association.

The European Court of Human Rights sentenced Greece, in its sentence of 3rd December 2015 (Case *Mytilinaios and Kostakis vs. Greece*) for having transgressed article 11 of the European Convention on Human Rights which previews the right to association, including the right to form trade unions. The form of forced co-ops has been alleviated in the Greek legal order through various dispositions (guarantee of equal treatment of cooperative members, consecration of the right of co-ops to be transformed into free cooperatives), this existent category of co-ops still keeps constituting an unfree form of association, which is contrary to article 11 of the Convention.

THE POST-COLD WAR ERA OF CONSTITUTIONS ON CO-OPS: FROM 1989 TO DATE

A Global Approach

The consecration of co-ops in Constitutions has not been realized yet, even in countries with an important tradition on that type of societies, such as Chile. In the Chilean Political Constitution there is no express reference to co-ops as forms of economic organization worthy of promotion by the State (Alcalde Silva, 2013).

In a comparable way, a special feature of co-ops in Denmark is that there is no ad hoc law whilst the freedom of foundation of co-ops results from the Constitution. In spite of the fact that this country has no specific cooperative law, it is endowed with one of the most developed cooperative movements all over the world (Kamenidis, 2016).

The aforementioned 1979 Constitution of Peru was replaced by another, in 1993, which through the 2009 amendment is still in vigor. The new Constitution has omitted the obligation of the enterprise to maintain educational centers and it previews, in article 15, the right of any person or corporate entity to promote and operate educational institutions and to transfer the ownership of such institutions, in accordance to law. Besides, cooperative education has been submitted to the general concept of private education whilst its state support is no more emphatical; article 17 cites that “*In order to ensure the greatest number of educational offerings and to help those who cannot afford their own education, the law sets forth the method of subsidizing private education in any of its forms, including communal and cooperative education*”. Last but not least, the Constitution omitted any other, at least explicit, reference to co-ops and to the cooperative movement. This marginalization ties in with the abolition of the compulsory

maintenance of educational services by companies and is quite indicative of the ideological tendency of the constituent power. In the Peruvian Constitutional History, there were 13 constitutions, of liberal ideologies – 1823, 1828, 1834, 1856, 1865 and 1867, of conservative ideologies – 1826, 1836, 1839 and 1860, of social ideologies – 1920, 1933 and 1979, and the actual neoliberal Constitution (Rojas Alvarez, 2008).

Anyway, the post-cold war era of constitutionalism has been marked by the creation and rather intensive operation of Constitutional Courts. For instance, in Indonesia in 2014 Law Number 17 of 2012 concerning co-ops in lieu of Law Number 25 of 1992 was canceled by the Constitutional Court (Iktamalah, 2018). According to the tribunal, the newer law was contrary to the 1945 Constitution and so a vacuum of norms resulted as far as the regulation of sharia co-ops is concerned, because in law Number 25 of 1992, which was declared valid for a while until the establishment of a new law, there is no regulation or explanation at all about sharia co-ops (Iktamalah, 2018).

Besides, in terms of material Constitution, Greece became the first country in the European Union to have adopted a specific legal framework on Energy Communities, later consecrated by the Renewable Energy Directive 2018/2001/EU. Energy Communities have been introduced in the Greek legal order as a sui generis category of civil co-ops, through the adoption of Law 4513/2018 and constitute an important challenge for sustainable development against classical schemes under Commercial Law, such as the public limit company.

The 97th Amendment of the Constitution of India

In India co-ops, which were essentially formed to help people overcome their financial problems, were infected due to various reasons, such as postponement of elections for an indefinite period and conflict of personal interests (Aggarwal, 2018). As they play an important role in the socio-economic development, the Parliament in order to address the problem introduced a revision to the Constitution (Raje, 2018), notified on 13 January 2012. The amendment was held through the adoption of the Constitution (Ninety-seventh Amendment Act) of 2011. It was made “*to provide a conducive environment, strong legal framework, and protection to cooperative societies, for their growth and to insulate them from unnecessarily political and bureaucratic interference*” (Veerakumaran, 2013).

It enshrines within Article 19(1)c the right to form cooperative societies. Furthermore, a new Part IXB was inserted, which contains provisions relating to the incorporation, board structure, election of members and board directors, application of this part among others, etc. in order to bring about uniformity in the process of election of its members and board of directors and therefore solve the problems faced by them in respect of such issues (Aggarwal, 2018). Thus, Indian cooperative movement is strongly supported by the Constitution (Veerakumaran, 2013).

Nevertheless, there is a skeptical group of cooperators, according to which the various changes or modifications effected in cooperative legislation (provision in the Companies Act, 97th Constitutional Amendment etc.) portend the incidence of the Government of India towards Liberalization, Privatization, Globalization (LPG) and its hidden agenda to make co-ops as a PPP (Public-Private Partnership), paving the way for the Multinational Companies (MNC) to have the final say in matters of economic importance (Veerakumaran, 2013). For instance, as co-ops are enjoying special rights and privileges over other types of enterprises in terms of registration of instruments, payment of income tax and wealth tax, there is lobbying by the other types of business firms for equal treatment and termination of special treatment of co-ops (Veerakumaran, 2013).

In reality, the Constitution constitutes a unique sample of dispositions on co-ops as it has acquired not only a general provision, as it would be normal for a Constitution, but an entire specific “law” within the fundamental law of the federal State. The new Part IXB includes 13 articles, No. 243ZH to 243ZT, and its form, from a technical point of view, resembles to the form of a formal law, as it is the case of Article No. 243ZH including definitions of various terms. It is also odd that the right to form co-operative societies was added in the Bill of rights along with the already existent provision of the right to form associations or unions, without clarifying the concept of associations. In other words, essentially the fundamental right to assembly is unique and non-profit assemblies and other unions, including co-ops, constitute its scope. It is also notable that article 19 is extremely problematic from technical point of view, especially because it comprises various authentic and autonomous rights, which could be consecrated in a separate article each.

THE CURRENT IDENTITY OF CO-OPS

The 1995 Statement on the Cooperative Identity of the International Cooperative Alliance

As far as cooperative law is concerned, legislatures are connected in a close net of supranational and regional governmental instruments, model laws, and rules established by private entities (Henrÿ, 2013). Indeed, there are various tools on the matter, either binding or in form of soft law but the emblematic tool consists in the Statement of the International Cooperative Alliance. The international movement on cooperatives, as expressed mainly by the Alliance, has formulated a set of International Cooperative Principles. Those guidelines, having as a precursor the cooperative principles which the Equitable Pioneers of Rochdale had formulated for their co-op, emerged in the 1937 Paris Conference and were partly revised in the 1966 Vienna Conference, which introduced the novelty “Cooperation among cooperatives”. Another revision was produced within the Statement of the Cooperative Identity, adopted by the General Assembly in the 1995 Manchester Conference. The Statement could

be compared with the formal Constitution of a State, in spite of its very limited extension, and consists in the definition, the values and the principles of co-ops.

The definition is the following: *“A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise”*.

As far as values are concerned, there is no definition on the matter whilst the doctrine makes a reference to the similar concept of Cooperative Idea, which is defined as a set of human ideals and values that are embodied in co-ops and aim at the well-being of their members (Kamenidis, 2016). Indeed, the ideals of liberty, democracy, equality, justice, fraternity and solidarity constitute the nucleus of that Idea and are materialized during the creation and the operation of co-ops, to ensure the well-being of their members, namely the increase of their incomes, the enhancement of their social position and the elevation of their intellectual level (Kamenidis, 2016). Some of these ideals have been incorporated either in the definition or in the values of the Statement, which includes a rather unclear distinction of values in two groups *ratione personae*. The mainstreaming set consists of the following “values on which cooperatives are based” (institutional values):

1. *self-help*
2. *self-responsibility*
3. *democracy*
4. *equality*
5. *equity*
6. *solidarity*.

The second group could be called “cooperative members’ ethical values” or preferably “cooperator values” whilst it is mentioned as “ethical values” in par. 3 (a) of the Recommendation No. 193 of the International Labor Organization (ILO). According to the Statement, in the tradition of their founders, cooperative members believe in the following ethical values:

1. *Honesty*
2. *Openness*
3. *Social responsibility*
4. *Caring for others*.

As for “Cooperative Principles”, they are defined as guidelines by which cooperatives put their values into practice. It is about a well-founded definition, let alone rare as for the conceptual delimitation between values and principles, in general. Those principles consist in:

1. *Voluntary and open membership*
2. *Democratic member control*

3. *Member economic participation*
4. *Autonomy and independence*
5. *Education, training and information*
6. *Cooperation among cooperatives*
7. *Concern for community.*

The last principle is defined as follows: *“Cooperatives work for the sustainable development of their communities through policies approved by their members”*. It is about an authentic novelty in the history of International Cooperative Principles and is closely related to the ethical value *“caring for others”*. It has not a merely ecological content, by making a separate use of the principle of sustainability of the environment. The concern of the co-op for the community, in which it develops action, is analyzed by the doctrine as employment offer to community members through the creation of production units, keeping the environment clean and respect for the social environment of the community through projects to resolve social problems, such as drugs and alcoholism (Kamenidis, 2016).

As a general rule, the set of International Cooperative Principles is not legally binding for States. For instance, there is not an official and explicit consecration of those rules by the Greek legislator. However, in some national legal orders the principles have been institutionalized, as a secondary source of law, in the framework of cooperative law. For instance, Spanish law 27/1999, of 16th July, on co-ops made an explicit reference to them. In a similar way, they may penetrate a legal order indirectly and informally, through the reproduction of their content. This is the case of the Multi-state Companies Act, a federal government law of India, which was adopted in 2002. Section 3(g) speaks about cooperative principles specified in First Schedule of the act, which is but the seven principles on the matter (Veerakumaran, 2013). Nevertheless, in a paradoxical way the Constitution through the aforementioned 97th amendment did not resume them. It suffices to mention, in article 243Z, that the Legislature of a State may make provision with respect to the incorporation, regulation and winding up of co-ops based on the principles of voluntary formation, democratic member-control, member-economic participation and autonomous functioning.

Recommendation 193 of the ILO

ILO was created in 1919 as part of Treaty of Versailles that ended World War I, to bring together peace and social justice. This U.N. agency has a sui generis nature, given that it is the unique case among the international governmental organizations with a tripartite composition, including governments, employers and worker organizations (Henrj, 2013). Its text *“Promotion of Cooperatives Recommendation, 2002”*, namely the precited Recommendation 193, revises and replaces the *“Co-operatives (Developing Countries) Recommendation”*, of 1966. It is the first and only instrument of

universal applicability on cooperative law adopted by an international governmental organization (which has also a transnational nature, as described) (Henrÿ, 2013).

The Statement of the International Cooperative Alliance has gained prestige due to the fact that its content is included in the ILO tool, in both the main text and the annex. This signals a certain view of the changing public/private dichotomy (Henrÿ, 2013). Furthermore, it is supported the opinion that because of this integration of essential parts of the Statement the Recommendation has become a legally binding instrument as far as cooperative law is concerned (Henrÿ, 2013). Nevertheless, the Recommendation is just a recommendation, namely not an international convention endowed with a legally binding character. Besides, the Statement itself, as already signalized, is not a source of law but a text of legal interest coming from a non-governmental (transnational) organization. So, it does have a binding nature either in a formal way, as a secondary source in certain legal orders, or in an informal and indirect way, through the reproduction of its content in a primary source of law, such as a national law. In that way, the remarks on the question of the legal nature of the Statement are applicable on the Recommendation.

The ILO text, in Paragraph 4, cites that measures should be adopted to promote the potential of co-ops in all countries, irrespective of their level of development. So, it marks a decisive step in the evolution of cooperative law by putting an end in the divide between “developed”/“developing” countries whilst it suggests, in the Preamble, designing global policies for global issues (Henrÿ, 2013).

Paragraph 7 emphasizes the right of co-ops to be treated on terms no less favorable than those accorded to other forms of enterprise and social organization. Governments should introduce support measures, where appropriate, for the activities of co-ops that meet specific social and public policy outcomes, such as employment promotion or the development of activities benefiting disadvantaged groups or regions. Furthermore, special consideration should be given to increasing women’s participation in the cooperative movement at all levels, particularly at management and leadership levels whilst, according to paragraph 8, national policies should promote gender equality in co-ops and in their work.

CONCLUSION

The present analysis has ended up to the following findings:

a. “Legalization” and politicization of co-ops, from no ad hoc law to the Constitution

Co-ops have a double nature, consisting in an association of persons and an enterprise. They emanate from the classical guarantee of association, whose constitutional consecration proved to be in a delay against other civil rights, as it is the case in Greek history (Alivizatos, 1981). The emergence of co-ops

has proved to be a “bottom-up” phenomenon in developed countries, in both social terms (from the working class to the State) and legal ones (from law to Constitution).

It is also notable that the incorporation of co-ops into the Constitution was in many times accompanied by an intense politicization of this institution. This is the case of social State (for instance, Egypt and Peru), through the adoption of the doctrine on social sector or cooperative property against the public sector (or property) and the private one. However, due to political reasons there is not always a gradual evolution of constitutional dispositions on co-ops at national level, as it is the case of the current Constitution of Peru.

b. Institutionalization of forced co-ops for political and developmental objectives

In the above-mentioned process of “legalization”, the identity of co-ops was seriously altered through the infringement of the diachronic, first International Cooperative Principle, for either political objectives, in the socialist countries, or for reasons of economic development, as it is the case of Greece. For instance, the 1936 Constitution of the Soviet Union emphasized co-ops but not consecrated the human freedom of becoming a member of cooperatives or of quitting from them. This recognition tied in with the unliberal character of the regime, which combined the planned economy model with a totalitarian political model. In a comparable way, the Greek State introduced forced co-ops, especially for certain regions or kinds of co-ops (the island of Samos, agricultural co-ops...). In both cases, public policy initially was adopted at the level of laws and then was promoted at the constitutional level, like the historical process of “legalization” of free co-ops.

c. The current challenge for education, culture and sustainable development

Constitutional dispositions, whatever the political system and the model of national economy they refer to, have proved to be quite distant from the diachronic International Cooperative Principle on cooperative education, although Peruvian social Constitution of 1979 adopted a comparable approach. It would be highly recommended to highlight and promote in a systematic way the nature of co-ops as carriers of *paideia*, in both aspects of this Greek-origin term, namely education and culture. For instance, the article of the Constitution on the right to education could be enhanced with the cooperative education, whose meaning is much broader than a form of education within the sector of private education.

In general, constitutions could make an opening to both traditional values and principles, such as *inter alia* fraternity, democracy and education, and more recent ones, such as “cooperation among cooperatives” and “concern for community”. So, constitutionalism may be renewed through the explicit and systematic incorporation of new guarantees that would be useful not uniquely in the matter of co-ops but also as general (cross-sectorial) constitutional guarantees. In a similar way, it is recommended to consider a further revision of International Cooperative Values and Principles, to

establish a simpler and more coherent set of guarantees, by putting the stress on cultural ones (culture, education...), and environmental ones (sustainable development, Containing Climate Change...).

Co-op is much more than a societal type, it is an authentic icon.

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GLOBAL OCEAN GOVERNANCE (GOG)

Maniatis, Antonios

Captains' School, Merchant Navy Academy of Macedonia, Nea Mihaniona, Greece

ABSTRACT

Oceans are subject to a unique international treaty, the United Nations Convention on the Law of the Sea (UNCLOS), which is also called "Constitution for the Oceans". However, there is a serious vacuum on underwater cultural heritage in the continental shelf and in the EEZ, so oceans are partly a field being open for antiquities looting. International Ocean Governance means processes, agreements, rules, institutions etc. on the way human beings use the ocean and its resources and is applicable in the set of the Area of the international seabed and the correspondent high seas. This system of complementary zones is known as Areas Beyond National Jurisdiction (ABNJ) and covers almost half of the planet's surface. International Ocean Governance includes the Regional and the Global Ocean Governance (GOG). GOG is of major importance in the current phase of the anthropogenic climate crisis, but it is slow in the matter of the eventual adoption of an international legally binding instrument under the UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, also known as the BBNJ-instrument. It is not exempted from other problems, such as inter alia the omission of the cultural heritage sector. Last but not least, the notion of International Ocean Governance is fragmentary, as extended and important (in environmental and cultural terms) parts of the ocean, such as the continental shelf and the EEZ, are excluded, although they interact environmentally and biologically with the Area and the correspondent high seas. In conclusion, GOG is not only a recent theoretical concept but also an impressionist one whilst the oceans are left in various maritime zones and fields of competence of many states and international organizations. Beyond the fragmentary approach to the oceans in the 1970s, exemplified by the division of the mid-ocean high seas into high seas and the Area, half a century later there is a need for a holistic approach to the ocean, each individually and as a whole...

Keywords: Antiquities looting; Area of the International Seabed; Areas Beyond National Jurisdiction (ABNJ); BBNJ-instrument/High Seas Treaty; Global Ocean Governance (GOG); International Ocean Governance; Law of the Sea; UN 2030 Agenda

INTRODUCTION

The word "ocean" has a Hellenic etymological origin, coming from ancient Greek. The

mainstreaming meaning consists in the big sea, beyond the Mediterranean Sea, which is called simply “sea”. It is also notable that many oceans have a Greek name, not to speak about an entire continent, such as Oceania. Besides, in ancient Greek the noun “ōkeanos” had also a metaphoric meaning, consisting in the concept of abundance in terms of wealth. This metaphoric use is also present informally in English, declaring a very large expanse or quantity.

From ancient times to date, the ocean is something comparable to the sea, especially the Mediterranean. As the name “Mediterranean” has to do with the sea in the middle of the Earth, the ocean was intrinsically something exotic and mysterious.

The current era of mankind is marked by the phenomenon of globalization, which has caused severe criticism. For instance, in one of the most important national economies worldwide, India, some cooperators entertain that the various changes or modifications effected in cooperative legislation the last years (provision in the Companies Act, 97th Constitutional Amendment, etc...) portend the incidence of the Government of India towards Liberalization, Privatization, Globalization (LPG) and its hidden agenda to make cooperatives as a PPP (Public Private Partnership), paving the way for the Multinational Companies (MNC) to have the final say in matters of economic importance (Veerakumaran, 2013). Nevertheless, it is to point out that many institutions of private economic initiative, such as co-ops, are not a national particularity of the UK, in which this societal type emerged in the nineteenth century in its current form, or another country but, as a general rule, travel the world over, much earlier than the emergence of globalization.

The current study takes an interdisciplinary approach to the oceans, with emphasis on legal and political data. It focuses on the phenomenon of Global Ocean Governance, commonly called “GOG” for reasons of simplicity, but it is also relevant to the wider phenomenon of International Ocean Governance.

It examines a central Research Question, as follows:

RQ: We assume that GOG needs a further completion, in the matter of cultural heritage.

At first, this paper introduces to the notion and some rules of the Constitution for the Oceans.

Furthermore, it analyzes the concept and the challenges of the aforementioned, modern form of governance.

Just afterwards, it comprises a stand-alone implications section.

THE CONSTITUTION FOR THE OCEANS

Advantages of the Constitution for the Oceans

The law of the Sea in its newer history emerged in the seventeenth century, through the consecration of territorial waters of coastal states and kept having a customary nature. In 1958, the current era of

codification was inaugurated through the 4 UN Geneva Conventions, with the important innovation on the zone of shelf continent.

However, those Conventions were not exempted from various problems, for instance in the matter of fishery. As a result, soon the international community, which was enriched by a big number of former protectorates of colony powers, attempted to modify their content. In the context of massive decolonization, new sovereign states emerged and became active players in the world competition in both terms of the law of the sea and merchant navy. For instance, both insular countries of Cyprus and Malta are regarded as traditional countries offering a flag of convenience, although their profile on the matter is not so intense after their accession to the EU.

So, the United Nations Convention on the Law of the Sea (UNCLOS) was signed in Montego Bay, Jamaica, at the end of almost ten years of negotiations. This legal tool replacing the system of the complementary Geneva Conventions was opened for signature on 10 December 1982 and entered into force on 16 November 1994. In its initial version, an area of the seabed beyond the continental shelf or the Exclusive Economic Zone (EEZ) was named "Area" and was characterized as "common heritage of Mankind" (Maniatis, 2018b). Nevertheless, when the Convention was concluded, some industrial States shared the point of view that the global approach taken to the question of the international seabed was marked by features of transnational monopoly interventionism in contradiction to the principles of free competition. Besides, they supported the opinion that the organizational structure previewed by the Convention gave to the majority such rights that there was no guarantee for the investing industrial States, which had begun to exploit mineral resources of the Area before the application of this text. With the leading intervention of the USA which paradoxically have not ratified the UNCLOS to date and have an active role relevant to the international seabed, an attempt was made to modify the relevant part XI, which is titled "The Area". The amendment was achieved through the 1994 New York Agreement and formally is a complement of the initial Convention. However, even with the new regulations, the announcement (which has been to date empty of content, according to the criticism of the doctrine) that the Area constitutes common heritage of Mankind (in virtue of article 136 of the UNCLOS) was not erased (Roukounas, 2006). In a similar way, the prevision on the fair distribution of benefices coming from the exploitation, to all the countries (particularly to the developing ones), independently to their geographical position remains valid.

It is notable that the codification process of the law of the sea has been perfected, given that a set of norms in more than one parallel conventions was replaced by a unique international treaty which nowadays has been ratified by the vast majority of the sovereign countries of all parts of the planet, the oceanic states included. The treaty was conceived and designed as a "package", which is regarded as its most important quality. This feature is not only practical in quantity terms but also realistic in

material terms due to the interrelationship of the many different issues involved. The text has been eloquently called by the doctrine “Constitution for the Oceans” (De Pooter) because it resembles to the authentic formal Constitution of a State, being a unique code of constitutional law. It is endowed with rules that nowadays have been promoted to general international customs, opposed to states that have not ratified it, yet. For instance, it is no coincidence that countries, such as the USA and Turkey, have a 12 nautical mile territorial sea.

Shortcomings of the Constitution for the Oceans with Emphasis on Cultural Heritage

The UNCLOS has omitted some zones, at least those related to fishery, and thus the importance of customary law, being independent from written international law, is big. This is the case of the Exclusive Fisheries Zone (EFZ), although countries having introduced such a zone, such as Iceland, have converted it into an Exclusive Economic Zone (EEZ), which has been regulated in the Constitution for the Oceans. This remark is also valid for Fisheries Protection Zone (FPZ), which usually is regarded as a de facto Exclusive Fisheries Zone, exemplified by the Spanish case in the Mediterranean.

Besides, there is a vacuum of law as for cultural monuments in the seabed beyond national territory, namely in the continental shelf or the EEZ of a coastal state. Underwater cultural heritage is occasionally understood as goods with a purely economic value (Nie, 2015). For example, in 1999, 350.000 Chinese ceramic artifacts were recovered from the sea and put up for auction in Germany, ignoring the historical and archaeological value for these pieces (Nie, 2015).

In 1980, the two “archaeological countries”, Greece and Italy, along with Capo Verde, Malta (which had the initiative for the institutionalization of the Area), Portugal, Tunisia and Yugoslavia, proposed the creation of a cultural heritage zone that could not extend beyond 200 nautical miles from the baselines, from which the breadth of the territorial sea is measured. (Maniatis, 2018a). However, this maximalist zone was turned down, due to the reactions of other countries that are not classified among the “archeological countries”, such as the USA, the UK and the Netherlands. Anyway, a compromise occurred, and the contiguous zone acquired a new version, an anonymous specific version. It is about the archaeological zone, as called by the doctrine, or the archaeological contiguous zone, as officially called by United Nations. This novelty is rather insufficient to prevent antiquities looting in the international seabed, off the Area (Nie, 2015). Obviously, it is a very limited space, which may not extend beyond 24 nautical miles from the baselines. It is problematic to such a pitch that there are no statistical data available whether some countries have institutionalized it or not. It is notable that even Italy, which has introduced that zone, has avoided baptizing it “archaeological zone”.

Anyway, the vacuum which has resulted from the failure of the proposal for a cultural heritage zone has led to the adoption of the UNESCO Convention on the Protection of Underwater Cultural Heritage. This important development was held in 2001 and is not exempted from serious problems, to date. For instance, it entered into force in a delay, in 2009 and led many countries, like Italy, to adopt unofficially its content in a preliminary way, by adopting national legislation on the matter. Although it has a successful content, it has not been ratified by the vast majority of states, including Greece.

THE QUESTION OF GOG

The Concept of GOG

The expression that is officially used in the matter of ocean governance by the international community is usually "International Ocean Governance". This generic term "International Ocean Governance" means processes, agreements, rules, institutions etc. on the way human beings use the ocean and its resources. However, another similar expression is also used, particularly by the doctrine, which consists in "Global Ocean Governance". The first term seems to be wider than the second one, given that it includes rules and practices not only at the world level but also at the regional one. However, the second one is clearly an impressionist one, not only because it focuses on the widest level in contradiction to the regional one, but also because it is based on an impressive wordplay, with the repetition of the letter "G". Besides, this invention coming from theoretical and political circles ties in with the aforementioned use of the word "ocean", in the framework of the legal science: at first, the doctrine made use of the expression "Constitution for the Oceans" and some years later of the comparable term "GOG" emerged. Nevertheless, it is not simply a question of linguistic similarity but a matter of political priorities in a sensitive and remote space, like the ocean beyond the national jurisdiction, which was previewed or further institutionalized in the Constitution for the Oceans, as it is the case of the jurisdiction of the coastal State in its EEZ.

Both neologisms "International Ocean Governance" and GOG comprise neither the internal waters nor the territorial waters of any coastal state, their seabed included. In other words, they are irrelevant to the notion of sovereignty of an oceanic polity. They are also irrelevant to other zones of national jurisdiction, such as the continental shelf and the EEZ, and they refer merely to the complementary zones of the Area of the international seabed (or simply the Area) and the correspondent high seas. This system of zones is known as Areas Beyond National Jurisdiction (ABNJ) and represents a huge space of the planet, more precisely the 45% of the Earth's surface. It is not simply very extended but also rich in biodiversity and resources and it enacts an important role in ecosystem, such as oxygen production and carbon storage.

Nevertheless, it is marked by a few and often weak laws to promote its protection. The customary marine tenure systems that are found, for example, in many countries of the South Pacific and in Japan provide an exception to the open-access nature of most ocean areas (Vierros, 2021).

It is notable that national policies on oceans are very different. European countries, the USA and Australia are seriously concerned by the problems of the environmental and of resource preservation whilst other countries are less concerned due to different reasons (La Rédaction, 2014). For instance, for the Japanese, marine resources are very important, in economic and cultural terms (La Rédaction, 2014). Japan implements resource development programs by making use of artificial reefs to increase productivity and promote species reproduction, so it has the idea of cultivating the sea (La Rédaction, 2014).

The governance of marine and coastal areas in many countries and in international waters is primarily sectoral, with fisheries agencies regulating fisheries catches; environmental agencies dealing with pollution prevention; and other specialized agencies regulating shipping, mining, and oil gas extraction (Vierros, 2021). Fragmentation of the ocean is caused by many different factors, such as zoning of the oceans, the limited scope and mandates of regional agreements, and a lack of detail in the UNCLOS (Abhold, 2019). Besides, there are more than one legal texts beyond the UNCLOS, involving other international organizations than United Nations. For instance, International Maritime Organization has led to the conclusion of many international treaties on merchant navigation particularly in the oceans. This is the case mainly of the International Convention for the Safety of Life at Sea (SOLAS), which is the most important legal tool and historically has resulted from the sinking of the RMS Titanic in the North Atlantic, and also of the International Conventions on the Prevention of Pollution from Ships (MARPOL) as well as on Standards of Training, Certification and Watchkeeping for Seafarers (STCW).

This lack of simplicity and eventually of cohesion resembles to institutional problems relevant to other issues of the law of the sea, such as ports. For instance, in the Greek legal order the Port Fund, being competent for the management of a state port, has proved to be a rather controversial institution. Media have commented on the matter that in a coastal town there are two “mayors”, the leader of the Port Fund, having jurisdiction in the port zone, and the official mayor, for the rest territory of the municipality. Municipalities, being the mainstreaming legal persons of local self-government, pressed the central government for many years and finally managed to undertake that responsibility although there are still some ports that are administrated by the State.

Besides, the declining health of the oceans has dire consequences for people, their livelihoods and entire economies, with the poorest communities that rely on ocean resources often being the most affected (Vierros, 2021). Criticism has been recently raised against the faux-fur substitutes, given that

fake fur is made of plastic, which is extremely harmful to the world's wildlife (Maniatis, 2019). According to the Ocean Conservancy, plastic has been found inside the bodies of more than 60 percent of seabirds and 10 percent of sea turtle species, which think that it is food. As Forbes pointed out, there is growing evidence that shows plastics may have a role in rising extinction rates of various animal species. Plastic doesn't usually biodegrade, even if it is labeled as "biodegradable".

It is also notable that oceans are interconnected through the movement of water masses, the migration of species and the dispersal of larvae (Vierros, 2021). Oceans and seas are deprived of boundaries, unlike the land sector, whilst the pollution is not limited necessarily near the coast of the state involved (La Rédaction, 2014). However, oceans are marked by political borders, such as those of the EEZ, which nowadays has been a very widespread institution. Under the UNCLOS, coastal states are required to ensure that living resources within their EEZs are not endangered by overexploitation (Abhold, 2019). EEZs and ABNJ are ecologically and biologically connected and so a special care on the matter is needed. Applying ocean governance on an ecosystem approach will need to take into account ecosystems and species that cross political boundaries and will benefit not only fisheries resources and migratory species, but also coastal communities (Vierros, 2021).

The BBNJ-instrument

The United Nations General Assembly in resolution 69/292, of 6th July 2015, decided to develop an international legally binding instrument under the UNCLOS on the conservation and sustainable use of marine biodiversity of ABNJ, also known as the BBNJ-instrument or High Seas Treaty, and to establish a preparatory committee to provide the Assembly with recommendations on the elements of a draft text. Furthermore, it decided that negotiations shall address the topics identified in the package agreed in 2011. It is about the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, in particular, together and as a whole, marine genetic resources, including questions on the sharing of benefits, measures such as area-based management tools, including marine protected areas, environmental impact assessments and capacity-building and the transfer of marine technology. This political initiative presents an opportunity to greatly improve ocean governance (Vierros, 2021).

According to the preparatory report, which was produced in July 2017, the legal text would set out the general principles and approaches guiding the conservation and sustainable use of marine ABNJ, such as inter alia the use of marine biological diversity of areas beyond national jurisdiction for peaceful purposes only, the sustainable development and the polluter-pays principle. As it is implied by the nature of things, the ad hoc committee suggested the consecration of the principle of international cooperation and coordination, at all levels, including north-south, south-south, and triangular cooperation. Another suggested principle consists in special requirements of small islands

developing states and least developed countries, including avoiding transferring, directly or indirectly, a disproportionate burden of conservation action onto developing countries. One of the recommended objectives on sharing of benefits is building capacity of developing countries to access and use marine genetic resources of ABNJ.

Besides, it is to pay special attention to the precaution, which could be correlated to the principles of prevention, which is not explicitly mentioned, and of science-based approach, using the best available scientific information and knowledge, including traditional knowledge. This approach should be incorporated in a prior position, given that the precaution is intrinsically dependent in the current status of scientific knowledge. Anyway, the precautionary principle is still a rather controversial matter in both the environmental law and the health law. For instance, France has been endowed since 2005 with a Charter for the Environment, which has a constitutional vigor. With the exception of this country, which has the second biggest surface of EEZs on world scale, no European state mentions explicitly this rule in its Constitution.

Furthermore, it is notable that the Universal Declaration on Bioethics and Human Rights, which was adopted unanimously by UNESCO's general conference on 19 October 2005, omitted this principle. The most important thing on the matter perhaps is not the absence of this standard but its deconstruction in the process of adoption of the Declaration. The standard was previewed in section III, as a risk management tool for public health purposes but it was removed from the final version. This is a matter of political volunteer in the diplomatic context, given that governments, not independent experts, have the last word in every declaration or convention issued by UN agencies (Andorno, 2007). The 2005 contradictory approach to the precautionary principle is one of the most eloquent issues of what has been indicated as the "grey-green character of environmental law" (Maniatis, 2020).

Political Mobility from September 2015 and on

The UN 2030 Agenda for Sustainable Development was adopted in September 2015, on global Sustainable Development Goals (SDG). It is about a set of 17 Goals and 169 targets, covering the period 2016-2030. The fourteenth Goal is the following: "Conserve and sustainably use of oceans, seas and marine resources". It comprises 7 targets, with emphasis on fishing and particularly to the problem of overfishing. This goal, with its comprehensive set of targets, provides an opportunity to bring ocean governance to the forefront of the global dialogue on sustainable development (Vierros, 2021). According to target 14.7: "By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable development of fisheries, aquaculture and tourism". This target is particularly important because it is related to vulnerable ecosystems and least developed countries and makes an explicit reference to

tourism. The so-called “tourism industry” constitutes a separate scope, which has been recently subject to the fundamental principle of sustainability.

Despite the successful and partly pioneering character of the Agenda, the formulation of targets is not exempted from problems. Indeed, tourism is still a taboo in the vast majority of Constitutions and there is not a sufficient consecration of the human rights to tourism and hospitality, in national and international law. So, it is odd to make an explicit reference to tourism uniquely for a set of weak countries whilst a global reference to sustainable tourism in marine and coastal areas would be possible. The so-called “tourism industry” constitutes a separate sector, which has been recently subject to the fundamental, general principle of sustainability.

Furthermore, there is no reference to cultural monuments on the matter, which constitutes a wider phenomenon, especially as far as the Area is concerned. Indeed, there is no available information on the status and the eventual risks of the cultural heritage found in the Area (Maniatis, 2018b).

Besides, the first-ever United Nations summit on oceans wrapped up on 9 June 2017 with a global agreement to reverse the decline of the ocean’s health, and more than 1,300 pledged actions for protecting the blue (UN, 2017). A 14-point political Call for Action was adopted, which confirms political initiatives, such as the United Nations General Assembly resolution 69/292 and the 2030 Agenda and especially SDG 14.

Last but not least, the European Union (EU), which is a party of the Constitution for the Oceans, has recently decided to support the Area, although it does not make an explicit use of this term (Maniatis, 2018b). For the next long-term EU budget 2021-2027, the Commission proposed in June 2018 6.14 billion euros under a simpler, more flexible fund for European fisheries and the maritime economy (European Commission, 2018). For the first time, it will contribute to strengthening international ocean governance for safer, cleaner, more secure, and sustainably managed seas and oceans. The maritime fund will enable investment in new maritime markets, technologies and services, such as ocean energy and marine biotechnology. The EU participates actively in many international processes and forums strengthening ocean governance, for instance in the matter of BBNJ-instrument, and promotes regional ocean governance, inter alia through its engagement in Regional Seas Conventions and Regional Fisheries Management Organizations.

IMPLICATIONS FROM THE CURRENT RESEARCH

The present analysis has ended up to the conclusion that the UNCLOS is no panacea, for instance as far as underwater cultural heritage is concerned. There is an important vacuum on underwater cultural heritage in the continental shelf and in the EEZ, so oceans are partly a field being open for

antiquities looting. In a comparable way, no data are available on the management, if not also on the precise existence, of monuments in the Area.

According to the current research, GOG should be conceived as a systematic part of International Ocean Governance, along with the regional one. There is no explicit consecration of the term “GOG” in international law and therefore this issue seems to be promoted particularly by the doctrine. It is about a new political and legal trend to cope with various multifaceted environmental problems and the dramatic phenomenon of anthropogenic climate change. That change has recently deteriorated to such a pitch that experts nowadays speak about climate crisis.

We suggest GOG and in general International Ocean Governance gain territory in both positive law and scientific research, with emphasis on human rights. GOG is in some aspects rather slow, as it is the case of the eventual adoption of the BBNJ-instrument, and also problematic in a wider sense, given that it seems to be not enough related to fundamental rights, such as the rights to tourism and hospitality. Paradoxically, it seems unrelated to the question of underwater cultural heritage whilst the environment is a synthetic notion, including not only nature and modern cultural goods but also inter alia cultural heritage. It is quite indicative of the controversial character of GOG that the International Seabed Authority has enacted an insufficient role in the overall management of the Area.

Last but not least, factors having an important role on public opinion, such as media and educational organizations, should put the stress on the case of GOG, whose importance goes far beyond the field of competence and interest of oceanic countries. Anyway, the origin of the nucleus of GOG, consisting in the Area, has to do with a non-oceanic state, Malta. Other non-oceanic countries, such as Greece, should follow the paradigm of Malta and take political initiatives as for both underwater cultural heritage and oceans, for instance by ratifying the 2001 UNESCO Convention.

CONCLUSION

First of all, the RQ has been fully confirmed, as it has been proved that GOG needs a further completion, in the matter of cultural heritage, which is also related to development objectives of oceanic countries, such as growth on the basis of tourism market.

Besides, it has resulted from the current research that the notion of international (or global) ocean governance is rather vague and anyway fragmentary, as extended and important (in environmental and cultural terms) parts of the ocean, such as the continental shelf and the EEZ, are excluded although they interact environmentally and biologically with the Area and the correspondent high seas. Beyond the fragmentary approach to the oceans in the 1970s, exemplified by the division of the mid-ocean high seas into high seas and the Area, half a century later there is a need for a holistic approach to the ocean, each individually and as a whole.

The Ocean is not merely a big sea, it is a big challenge for mankind.

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FASHION INDUSTRY, REGULATION AND MANAGEMENT

Maniatis, Antonios

Captains' School, Merchant Navy Academy of Macedonia, Nea Mihaniona, Greece

ABSTRACT

The consecration of industry in Constitutions is due to an intense desire of the States involved in the matter of development at the macroeconomic level. This economic obsession could be regarded as comparable to the systematic use of cooperatives for development reasons, in the world of developing countries, including post-colonies. Besides, fashion is a prosperous industrial sector that is affected by an imbalance of power that goes beyond the outsourcing of part of the manufacture to developing countries. Recently it has begun to correspond to a new, separate field of law, called "Fashion Law" or "Apparel Law", although the regulation on the matter has been conducted to a great extent through alternative mechanisms, exemplified by contracting between private individuals and legal entities under private law as well as by soft law. Soft law is not limited to the internal market of each country, but it has been promoted at international level, in the sensitive domain of the environment. It is exemplified by declarations of self-regulation of the fashion industry to protect minors and on Containing Climate Change (CCC), instead of the official adoption of rules. It is recommended to consecrate the new generic principle of priority of environmentally endogenic activities, such as tourism and sports, over industry, the fashion industry included, and to recognize the 4G human right to fashion, in various sources of law, including Constitutions. Last but not least, women are particularly vulnerable in terms of eating disorders and a key factor to contain climate change. So, States should adopt a coherent, systematic, gender-based policy with emphasis on the fashion industry, which is particularly harmful to the environment and is intensively dependent in females, as for both the promotion (mannequins) and the consumption (final users) of fashion products. This policy should be produced in law as well as in practice (education, raising public awareness through the media and the fashion industry, etc.).

Keywords: Apparel Law / Fashion Law; fashion management; Containing Climate Change (CCC); fashion industry, gender; human right to fashion; priority of environmentally endogenic activities (environmental endogeneity); self-regulation; tourism

INTRODUCTION

The noun "fashion" has as a synonym the word "vogue", which has the meaning of fashion or

general liking, especially a liking with a temporary character, even as long as it is irrelevant to the fashion industry. This activity constitutes an authentic case of industry, belonging to the secondary domain of national economy, as it consists in mechanized manufacture of raw materials.

When it comes to fashion, your mind goes to a spontaneous movement, being free from external rules. In other words, fashion implies *sui generis* attitudes, such as self-regulation, and avant-garde tendencies. However, is fashion industry a phenomenon exempted from regulation, particularly from legal rules? In other words, does the vogue world, deeply shaped and influenced by tendencies in countries of West Europe and in the USA, look like a Far West?

The famous designer Diane von Furstenberg has declared: *"Style is something each of us already has, all we need to do is find it"*. It would be important to analyze styling not only in ontological terms (for instance, aesthetics, the tendency of "fast fashion" etc.) but also in deontological and legal terms. This orientation to norms does not mean necessarily an autonomous approach to fashion, far away from the needs and the perspective of entrepreneurship and the interests of the professionals involved. To cope with the synthetic and rather heteroclitic aspects of this socioeconomic phenomenon, the current paper focuses on the following research question:

RQ: We suppose that the fashion industry deserves further regulation, let alone a modern one.

The multifaceted institution of vogue is examined in an interdisciplinary way, with emphasis on law and management. First of all, the analysis focuses on fashion products, especially of clothes, in terms of a specific domain of industry in the wider context of national and international economic context. Indeed, it analyzes the concept of the vogue industry, particularly in correlation to new trends and controversies in the demanding era of globalization. The elaboration of this form of industry is preceded by an introduction to the generic concept of industry throughout history.

Furthermore, the present analysis examines various methods of regulation of this economic activity, with a special reference to self-regulation of entrepreneurial factors.

On account of this analysis, a conclusion discussion follows, with emphasis on the question of protection of environmental goods, far beyond a vague approach to the principle of sustainable development.

Just afterwards, a stand-alone implications section exists, to highlight the practical consequences of the findings.

FASHION INDUSTRY

Decodifying Industry with a Special Reference to Hotel Industry

The term "industry" is indicative of the desire of States, particularly of those adopting capitalism, for industrial development. This political orientation from agricultural structures to manufacture has

proved to be so intense that industry soon found its own place in the formal Constitution of various countries. In other words, industrial development followed the parallel trend, at least since the nineteenth century, of constitutionalism. For instance, article 105 (point th') of the Hellenic monarchical Constitution, which was adopted in 1844 as a result of the Revolution of 3rd September 1843, previewed that with a separate law, let alone as soon as possible, provision must be made "On animation of agriculture, industry, trade and shipping".

Forty years later, Josef Stradner published a study containing an initial definition of tourism, which was conceived as a "travel industry" (Maniatis, 2020b). It is also notable that when a use of the term "product" is made, this literally refers to material goods of either the primary sector or of the secondary one. It does not cover the concept of the tertiary sector, to which tourism belongs (Maniatis, 2020b). Nevertheless, a metaphorical use of this expression is frequent and also indicative of the single nature of the economic phenomenon of offer.

After a century constitutional consecration of industry, a unique case of explicit recognition of hotel industry took place. The 1947 Constitution of Italy incorporated a laconic mention of "tourism and hotel industry". That pioneer disposition, being in vigor since 1 January 1948, paradoxically was fully erased in 2001. In both Greek and Italian Constitutions, the State involved did not merely institutionalize the desirable form of industry, but it approached it as a specific challenge for the future of national economy. In other words, it programmed, in an elementary way, the economic growth by emphasizing a – generic or specific – promising version of industry, which had not been sufficiently developed yet.

It is indicative that the Italian constituent legislator made use of the term "industry" not only in a specialized way whilst he could adopt the wider term "tourism industry", but in an exclusive way, omitting any other form of industry. Although his homeland had already been an important industrial power since before the end of the nineteenth century, for instance in the matter of railways, he manifested an explicit interest uniquely in the domain of hotel industry.

However, putting the stress on hotel industry in a separate way nowadays seems to be rather anachronistic, as the 2016 amendment proposal did not focus on this limited aspect of the tourism market. More generally, the current international trend consists in conceiving tourism as a global phenomenon, including the subsector of hospitality industry, above all exemplified by hotels.

Decodifying Fashion Industry

A typical fashion supply is highly complex, including raw material farmers / producers, fiber and textile producers, apparel manufacturers, transporters, warehousers, and retailers (Shen, 2019). Different ways of sharing information in a fashion supply chain are the reason why some supply chains work more efficiently than others (Shen, 2019).

Anyway, vogue boosts economy and helps a very big number of people find a job. According to a research, fashion industry represents an annual sales turnover of about 1.300.000.000 dollars (Dumez, 2012). We think that it is about quite impressive data, given that fashion is endowed with a huge turnover, being superior to the turnover of the sectors of cinema, book, software and registered music (Maniatis, 2019b).

Vogue is not merely a form of industry but primarily a kind of art, so it is intrinsically based on designer's creative talent and ideas. Exclusivity is a tool of every brand and business operating in this market that approaches the snobbish appeal to a certain class of people making them different from the others (Jonahshinh, 2021). The bigger the brand, the greater is the appeal and thus, greater is the demand of the product and monetary benefits (Jonahshinh, 2021).

Fashion and tastes influence the demand of goods and services relevant to leisure, as it happens in other sectors (Tribe, 2019). For instance, the demand of tennis facilities and accessories is rising sharply during the season of tennis tournaments, such as Wimbledon. In a similar way, events of rugby and soccer world cup have a big impact on sales of sport clothes and commodities, as it happens in case of success of sport clubs in the framework of national championships. In other words, fashion is crucial not only for products of the authentic case of vogue and industry but also in the matter of industry in a metaphorical sense, such as both sport and tourism industry.

Nowadays, the fashion sector is a part of the globalized economy and so is open to a very extended international competition, which is conducted by various types of societies, such as inter alia cooperatives. In one of the most important national economies worldwide, India, which is attractive for textile and apparel buyers inter alia due to its large consumer market (Shen, 2019), some cooperators entertain that the various changes or modifications effected in cooperative legislation the last years (provision in the Companies Act, 97th Constitutional Amendment, etc...) portend the incidence of the Government of India towards Liberalization, Privatization, Globalization (LPG) and its hidden agenda to make cooperatives as a PPP (Public-Private Partnership), paving the way for the Multinational Companies (MNC) to have the final say in matters of economic importance (Veerakumaran, 2013). Nevertheless, it is to point out that many institutions of private economic initiative, such as cooperatives, are not a national particularity of the UK, in which this societal type emerged in the nineteenth century in its current form (the Rochdale Society of Equitable Pioneers), or of another country, but, as a general rule, they travel the world over, much earlier than the emergence of globalization.

Anyway, it is notable that the doctrine has raised severe criticism on the current status of fashion industry. This sector is affected by an imbalance of power that goes beyond the outsourcing of part of the manufacture to developing countries (Noto La Diega, 2018). Said imbalance characterizes the

whole supply chain and hinders freedom of expression, freedom to conduct business and, hence, creativity and innovation (Noto La Diega, 2018).

Furthermore, new centrifugal tendencies have been developed, in the field of clothing. This development is related to the modern trend of collaborative economy (alternatively also called the “sharing” or “access” economy), whose cooperatives are active members. Sharing economy is exemplified mainly by the sector of tourism and transports, having Airbnb as an emblematic company in the subsector of short-term accommodation.

Perhaps the vogue sector has been incorporated in a delay in this market of product use, being digitally facilitated, but it is present. The trend of “rentable fashion” has become a new version of fashion market. Formal occasions such as weddings or black-tie events, the options to try new brands, saving money and wearing luxury or premium brands that would be prohibitively expensive to buy outright, are the top four reasons for consumers to rent (Benoualid, 2019). Of course, it is also about ecological concern: when it comes to circular fashion, it is important to extend the lifecycle of garments being still good to wear. The aforementioned concept of “fast fashion” constitutes a prevailed tendency but is bad for the environment.

THE REGULATION OF FASHION INDUSTRY

The Existence of Fashion Law

In the American legal order, no protection of innovation of fashion industry exists, at least as for the level of creativity, namely of the conception of design (Maniatis, 2019b). In contradiction to European legal orders, particularly exemplified by the French one, there is a kind of encouragement of copying other designers’ ideas, to promote competition. However, this lack in norms protecting copyright of professionals in the vogue community has not hindered the recent, gradual emergence of a new branch of law. Just the opposite, not only have the USA denied intellectual property rights to fashion designers but they have also begun to recognize law on vogue (Maniatis, 2019b). Indeed, if American literature has produced the term “paradox of piracy”, perhaps it seems also paradoxical that since some years the USA have made speech of “Fashion Law”, implying the existence of a new field. The recognition of this branch remained marginal, if not thoroughly inexistent, at least till 2018, in Europe (Blaise-Engel, 2018).

It is accurate to speak about “Apparel Law” or “Fashion Law”, given that data from training, research and other domains of academic activity highlight that the conditions are mature for that development. According to a recent research, it is about a separate field of law, having to do with the fashion market and the status of each category of professionals involved, such as designers, mannequins and photographers (Maniatis, 2019b). Nevertheless, some categories of professionals

involved are not endowed with a fully satisfactory set of norms, as it is the case of mannequins constituting an emblematic case of persons deprived of any neighboring rights.

The Pluralism of Sources of Fashion Law

It is still doubtful whether, in the closed community of fashion, law is the main device regulating the relevant relationships or not (Noto La Diega, 2018). Indeed, there are other mechanisms, such as contracting, which may introduce the rules of the games in this market, which traditionally has been exempted from ad hoc rules being produced by the authorities. However, Fashion Law consists in specific regulation on vogue, as follows:

a. Regulation by fashion industry (self-regulation)

Some rules are produced by the vogue industry itself, although this form of internal production usually appears in an informal way. For instance, Condé Nast, the publisher of the magazine titled “Vogue”, adopted in 2018 new codes of conduct for models and afterwards called on the fashion industry to raise the minimum age of models to 18. It is no coincidence that this radical development promoting the legal condition of children has been inspired by the Me Too movement, which emerged in the Hollywood context and then spread through the fashion industry. It is to put the stress on the fact that this industry is intrinsically related to the world of movies, as they share the element of public spectacle in artistic terms.

If Vogue’s policy aims at protecting minors from various dangers and mainly from sexual harassment, the self-commitment is a wider phenomenon on international scale. For instance, in 2016 the national declaration of self-regulation of Italian fashion against anorexia was adopted (Pozzo, 2016). This deontological text was produced by factors of the State and the vogue community and focuses on the vulnerable conditions of teenagers which would like to enact a role in the field of fashion as mannequins and are influenced by this mission of other girls already involved. It is notable that the producers of this text are committed to adopt such a conduct that mannequins under 16 years are excluded from fashion shows. This ban is due to the fact that those girls are still unprepared for the context of vogue professionals, who run the risk of transmitting false messages to their peers (Maniatis, 2020a). It is remarkable that this mobility against anorexia has highlighted the particular relation between fashion and women, particularly young women. For instance, Yves-Saint Laurent declared: “*I have always believed that fashion was not only to make women more beautiful, but also to reassure them, give them confidence*”. Nevertheless, women are not simply more affected by the fashion movement but also seem to be particularly vulnerable, as it is the case of anorexia. In general, eating disorders are much more common among women than men. A 2016 study may have uncovered a neurological explanation for this disparity (Whiteman, 2016). Researchers found that women are more likely than men to experience brain activity relating to negative body perception (Whiteman, 2016).

Besides, it is to put the stress on the question of protection of the environment as far as the operation of fashion industry is concerned. This is the case of self-commitment of some professionals to avoid designing mink coats and coyote-trimmed jackets. It is about an international movement gaining territory on the matter, as consumers, businesses, and nations alike recognize that faux fur fabrics are better for the environment and spare animals a miserable life and a bloody, painful death (Maniatis, 2019a). The irony of the story is that a big number of minks were led to massive death in various countries, including Greece, during the period of the pandemic COVID-19, as they were affected by it and were held as a danger for public health.

Furthermore, it is notable that Climate Change Law constitutes a recent branch, which has gained its independence against classical Environmental Law, in 2015, on the basis of the relevant Paris Agreement. The dramatic phenomenon of anthropogenic climate change has led to new international law rules on the matter, such as the aforementioned Agreement, and soft law on vogue, which has been adopted as a complementary set of rules. This correlation of a specific part of the industry to the global policy on climate change is particular, in the sense that there is not a wider movement for specific self-regulation in a way parallel to world climate conferences. It results that there is an important dynamic of the vogue sector, due to its crucial environmental impact. Fashion soft law on the matter was adopted initially in 2016, in combination with COP22, and afterwards in 2018, with a reference to COP24. The first point of the 2016 declaration, consisting in the target to conceive as much as possible clothes to last and to be reborn, has been characterized as impressive (Maniatis, 2019a). The new right to Containing Climate Change, commonly known with the acronym “CCC”, has been significantly promoted through those parallel initiatives.

b. Official regulation

Official regulation on fashion is rather scarce whilst environmental and other issues in the vogue sector are of major importance. For instance, in the EU legal order Regulation (EC) 1907/2006, known as REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) is related inter alia to clothing market, which is based on agricultural process (Maniatis, 2019a).

As already implied, laws which do not focus particularly on vogue seem to influence more the fashion industry than the specific normativity does. This is the case of a “green tax” which has been introduced by the Greek State, over plastic bags, for the transposition of directive (EU) 2015/720 of the European Parliament and of the Council of 29 April 2015 amending directive 94/62/EC as regards reducing the consumption of lightweight plastic carrier bags. Anyway, this new policy, which has proved to be successful in Greece, highlights the character of fashion market as a mainstreaming case of industry, being in need of packaging, in contradiction to other forms of industry, like the electricity one.

CONCLUSION DISCUSSION

A Development Concern

The explicit reference to industry, in law and practice, has proved to be related to a development strategic of the public sector, just like cooperatives have been used by the legislator in developing countries, such as former colonies, for development objectives (Henrÿ, 2013). Since the nineteenth century, the polity has wanted to be identified not only as a constitutional state but also as an industrial one, modernizing its economy and enhancing its constitutional background in a rather impressionist way. It is about a quantitative target, which is not necessarily linked with environmental concern and has been set much earlier than the emergence of Environmental Law, which occurred just in 1972 with the United Nations Conference on the Environment.

This traditional macroeconomic approach has been combined with the well-known concept of fashion industry. Vogue has been shaped on commercial concept, based on mass consumption of products, according to the concept of fast fashion. In a way, the particularly ephemeral character of styling material has tied in with the ephemeral character of the mannequin's job...

An Environmental Concern

Even nowadays ecological policies are exposed to severe criticism, as it is the case of the approach to tourism development. It is to pay special attention to the fact that a recent research relevant to tourism, in an original way on international scale, has concluded to the proposal for the consecration of a new legal principle, which is not only important for leisure activities, such as tourism and sports, but indirectly for industry (Maniatis, 2020b). According to this innovative approach, the "tourism industry" is considered to be more environmentally friendly than the authentic industry. Guided tours, exemplified by free tours, constitute environmentally friendly practices of the tourist activity, since they are carried out without the use of polluting vehicles. As a result, it has been proposed that the endogeneity of tourism in the environment be legally enshrined as a principle of Tourism Law. The ecological concept of endogeneity could be compared with the principle of integration of environmental policies, in several sectors of economic production, such as trade and industry, within the framework of EU law. On the one hand, mainly or fully non-productive activities, such as recreational ones (tourism, sport...) are carried out in direct contact with both nature and cultural goods in such a way that they are intrinsically integrated with the environment. It turns out that they should be subject to a new generic guarantee of Environmental Law, consisting in the principle of endogeneity of non-productive use of environmental goods, which would imply a priority of that type of use over production.

On the other hand, all three sectors of the economy must be permanently linked to environmental policy and management, in particular to the fundamental principle of sustainability. This remark is

valid particularly for the fashion market, whose development has been conducted in a way being detrimental for the environment, as it is inter alia very water consuming and dependent in chemical-based agriculture. Of course, the principle of sustainable development is applicable in this field but also other eco-friendly legal tools, such as the suggested one, would be useful.

Besides, it is notable that the question of containing climate change has been particularly related to women, although this remark has not been sufficiently realized by the feminist movement, yet. According to this movement, males and females adopt a different conceptual approach to climate change, as they do in almost all other issues (Maniatis, 2019c). Women's way of life produces less greenhouse gases than that of men. For example, women tend to drive smaller cars, drive less in general, use public transportation and eat less meat. Nevertheless, the adoption of this concept is marginal, for instance in the framework of the Spanish doctrine.

LEGAL AND MANAGERIAL IMPLICATIONS OF THE CURRENT ANALYSIS

The Expediency of Establishing the Human Right to Fashion

Fashion Law is a very new and still rather marginal field, being marked to a big extent by soft law and other similar practices and institutions, instead of official legislation. Obviously, this lack in state norms is due to a certain political attitude on behalf of the power and it could be slightly comparable with the limited character of normativity on tourism, which keeps being a taboo.

Nevertheless, Apparel Law has to regulate a domain of major importance, in both economic and environmental terms, so a systematic approach of international and national public authorities on the matter is recommended. As it happens in many new fields of law at their beginning, it is deprived of any explicit ad hoc constitutional disposition. We suggest the human right to fashion be consecrated in various sources of law, including Constitutions, preferably along with the state protection of fashion industry. In that way, Fashion Law would be no more headless, as it has been to date, as long as it is tacitly excluded from the head of national sources of law.

As already mentioned, there is still a tendency to consider some private tendencies and practices, particularly those relevant to leisure (such as tourism) and aesthetics as something which is not decent enough to gain territory in Constitutional Law by becoming an institution explicitly recognized in the Constitution. Not only is this tendency irrational but it tends to be obsolete, mainly in the matter of the right to sports, which has gained territory in comparative Constitutional Law. Indeed, this guarantee, which is above all related to amateur activities of private individuals, has been sufficiently incorporated in a very big number of Constitutions. Anyway, public authorities should encourage active participation of SMEs, including cooperatives, in the production and trade of clothing products and other commodities of fashion industry.

The Need to Adopt a Systematic Policy for Women Directly or Indirectly Related to Fashion

The current analysis has examined the phenomenon of fashion in economic and ecological aspects and has ended up to a conclusion, which was not obvious, at least at the beginning. It is about the particular vulnerability and the crucial role of women against men, in various aspects of social life being related directly or indirectly to fashion. This disproportionality is obvious and well-known in terms of eating disorders, as it is the case of anorexia.

However, there is also another difference, which is relatively unknown. The research has highlighted the fact that women contribute less to the anthropogenic climate change and so their conduct is beneficial for the environment. On account of these data, States should adopt a coherent, systematic, gender-based policy with emphasis on the fashion industry, which is particularly harmful to the environment and is intensively dependent in females, as for both the promotion (mannequins) and the consumption (final users) of fashion products. This policy on women's social behavior should be produced in law as well as in practice (education, raising public awareness through the media and the fashion industry, etc.). For instance, a managerial implication on the matter would consist in relevant education of managers and members of cooperatives, in the framework of the diachronic International Cooperative Principle on education.

EPILOGUE

The current analysis ends up to the final conclusion that vogue industry is a demanding complicate sector, being in need of an interdisciplinary research with emphasis on ecological aspects. It has fully confirmed the RQ, as it has been proved that the professionals and the clients of fashion market, especially women, are in need of further modern regulation, inter alia to cope with eating disorders. Fashion Law is neither a matter of fiction nor merely a substitute of traditional law, although it keeps being marked by rather marginal forms of regulation (contracting, declarations and other forms of soft law...). It is about an authentic and independent field, being deprived of sufficient academic and political elaboration. In the current era, in which the relation of mankind with nature and particularly with wildlife has proved to be dramatic (climate change crisis, pandemic of COVID-19), the demand of a systematic public approach to adoption and codification of rules on fashion industry and the consumer right to vogue is actual. In this context, Fashion Law could be held as the new entry in the field of legal science and political decision-making, a few years after the emergence of a comparable branch, consisting in Climate Change Law. Climate change constitutes a major crisis for mankind whilst sustainable development is a mainstreaming principle of law and management on fashion.

Fashion industry is a traditional business sector whilst the constitutional right to fashion is a highly recommended 4G right...

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DO SOCIAL MEDIA ENGAGE STAKEHOLDERS THROUGH SDGS COMMUNICATION? SOME PRELIMINARY RESULTS FROM A CROSS-COUNTRY ANALYSIS

Mehmood, Asad¹; Hajdini, Johana¹; Iaia, Lea¹; De Luca, Francesco¹; Vrontis, Demetris²

¹Department of Management and Business Administration, University "G. d'Annunzio" of Chieti-Pescara, Pescara, Italy

²Department of Marketing, School of Business, University of Nicosia, Nicosia, Cyprus

ABSTRACT

We aim at investigating which social media posts' characteristics could better affect stakeholder engagement with respect to UN SDGs in the European context. We apply Chi-Square Automatic Interaction Detection (CHAID) method to categorize social media posts based on their engagement levels. We considered the Twitter, a well-known social media platform, and collected all the tweets published in 2019 by companies that issued a sustainability report on Global Reporting (www.globalreporting.org). The final sample is based on 3,045 tweets from 173 firms of different industries and countries. We find that tweets characteristics such as content type (communication of SDGs), industry type and country of a firm significantly influence stakeholder engagement rate. This paper contributes to provide new insights about the impact of the communication of SDGs by the firms through social media on stakeholder engagement. The results of this study can be generalized to all European countries as well as to other continents. Findings suggest that firms need to pay more attention to focus on most important group of SDGs in order to achieve a sustainable world.

Keywords: Stakeholder Engagement, SDGs, Social Media, CHAID, European Firms.

INTRODUCTION

The increasing importance of the role of CSR communication requires companies to pay more attention to the creation of engagement, particularly referring to the valorization of the SDGs achieved during their activity (Chatzoglou et al., 2017; Salehi et al., 2018). Nowadays social media are one of the most used tools to engage with stakeholders in different sectors and regarding several topics. However, in the best of our knowledge, the literature still misses a framework to understand how to structure the dialogues and messages and how these should be presented for effective stakeholders' engagement through social media. Therefore, we consider stakeholder theory and aim to analyze which group of social media posts successfully engages stakeholders in the European context. Specifically, we aim also at understanding which (one or more) of the 17 SDGs lead to higher stakeholder engagement.

Stakeholders are any group or individual who can affect or is affected by the achievement of the organization's objectives (Freeman, 1984), the definition of company's strategy (Nutt & Backoff, 1992) as well as gain or lose from business' outcomes due to the stake they have in it (Allen, 1988; Benneworth & Jongbloed, 2010). Their role is evolving together with the concept of Corporate Social Responsibility (CSR) (Caulfield, 2013), assuming new connotation in the business environment (Lim & Greenwood, 2017) known as "stakeholder engagement" (Buallay et al., 2020; Devin & Lane, 2014; Heath, 2010; Morsing & Schultz, 2006).

The stakeholder engagement is achieved at the end of an effective communication strategy which encourages a two-way symmetric communication between organizations and stakeholders (Morsing & Schultz, 2006). This involvement generates a mutual understanding of this relationship (Giacomarra et al., 2020; Lyon & Montgomery, 2013) and a co-creation of the CSR activities (Crane & Glozer, 2016) and value with consideration of such co-creation models as effective tools to promote sustainability (Giacomarra et al., 2020).

At the same time, companies need to address the CSR practices to the achievement of the Sustainable Development Goals (SDGs) considered relevant, with the aim at communicating their contribution to sustainability, building trust (Buallay et al., 2020), improving the perceived company value for the stakeholders (Marques et al., 2020; Pillai et al., 2017), as well as sharing such address, increasing the potentiality of the stakeholder engagement.

Even if previous literature has emphasized the importance of CSR and stakeholder engagement (Aguinis & Glavas, 2012; Crane & Glozer, 2016; Jeffery, 2009; Kesavan et al., 2013; Wang et al., 2016), focusing on several industries such as the hospitality industry (Aluri et al., 2015; de Grosbois, 2012; Holcomb et al., 2007; Jankovic & Krivacic, 2014), or stakeholder groups such as employees, customers or shareholders (Holcomb et al., 2007; Kim et al., 2015; Park & Levy, 2014; Rosado-Pinto & Loureiro, 2020), there is still a lack in addressing effective communication for increased stakeholder engagement, for the common purpose of sustainability, which proves beneficial to all the actors included in the process, and the society as a whole.

A communication tool to succeed in building of this relationship could be social media, intended as interactive communication environment for people and businesses (Surucu-Balci et al., 2020). In particular, the stakeholder engagement could be represented by the engagement rate on company's post (Denktaş-Şakar & Sürücü, 2020; Pletikosa Cvijikj & Michahelles, 2013), measured with a set of indicators such as content type. However, not all social media posts generate the same level of stakeholder engagement. Therefore, our aim is to identify which characteristics of social media posts result in higher stakeholder engagement. Specifically, we target the 17 SDGs set by UN, and analyze which of these 17 SDGs successfully engage stakeholders.

According to our best of knowledge, this is the first study that considers such research question related to SDGs and tries to address it by adopting the Chi-Squared Automatic Interaction Detection (CHAID) method. Further, this study provides a comparative analysis of 8 industries among 19 European countries. The analysis is conducted on the tweets published in 2019 by companies that issued a sustainability report on Global Reporting (www.globalreporting.org).

The following sections are structured as follows. Section 2 discusses the literature review while Section 3 explains the research methodology. Data analysis and discussion are presented in Section 4 whereas Section 5 discusses the conclusions.

LITERATURE REVIEW

Stakeholder engagement

Stakeholder theory can be used in order to explain the motivation for the usage of social media by the companies. This theory suggests that firms should focus on their stakeholders needs, who are shareholders, suppliers, authorities, employees, customers as well as the society, for their satisfaction in order to remain sustainable for the long period (Yang, 2018; Yuen et al., 2018). Mainly, the theory put forward the satisfaction of a higher number of parties including also those who have silent or legal interest in the company, instead of focusing only on the satisfaction of shareholders' needs (Freeman, 1984; Yuen et al., 2017).

Stakeholders have the ability to impact outcomes of business firms and thus resulted in stakeholder engagement practice. Schaltegger and Burritt (2017) discuss that stakeholder engagement is the process of involving stakeholders in dialogue for determining their concerns about the firms for economic, social as well as environmental factors for improving the firms' decision making and to make them more accountable.

The stakeholder engagement process is based on four categories including mapping stakeholders; engagement model; concerns of stakeholders; and plan of action (Iberdrola, 2019). In mapping stakeholders, the aim is to recognize and categorize firms' stakeholders. There is also need to prioritize the categories of different stakeholders as each stakeholder has a different impact on the sustainable performance of the firm. In engagement model, it is necessary to decide and to set a predefined engagement level with firms' stakeholders. Further, the several engagement modes are also examined in order to select those modes which are appropriate for supporting the engagement level. In stakeholder concern, it focuses on determining the problems that are experienced by each category of stakeholders in order to assess the risk and opportunities that emerge from the problems faced by stakeholders. At last, in action plan, the strategies are formulated in order to resolve the problems that

stakeholders experience. It also focuses on providing a system for feedback which purpose is to evaluate and report how effective the strategies that were formulated to meet stakeholder needs.

In literature, only a few studies have focused on engagement model for the firms, for instance, study by Surucu-Balci et al. (2020). In particular, there is a knowledge gap mainly at the operational or tactical level in terms of how to organize and present messages and dialogues in order to attain intended stakeholders' engagement. In a digitalized world, for the engagement model, social media works as an engagement channel to improve stakeholders' engagement by complementing traditional channels including sustainability reports, focus groups, meetings, interviews, television and newspaper articles.

Determinants of stakeholder engagement in social media

The use of social media by firms has resulted in increased stakeholder engagement since the social media introduction (Viglia et al., 2018). The social media enables and accelerates the communication between the firms and individuals through the interaction and dialogue. As a result, firms can use this channel for promoting different activities related to organizational, commercial, SDGs agenda, as well as corporate social responsibility (CSR) with no or at a low cost for engaging their stakeholders.

In social media, stakeholder engagement is challenging as the stakeholder engagement level is significantly influenced by the social media posts content. This represents that posts characteristics such as type of media, content type, timing, length of message severely affect the likes, comments and re-shares of the posts. The management of firms is required to focus on social media by considering all aspects including if the post should be shared with an image or video, post content type, and number of words in the post.

In literature, few studies have focused on finding out the determinants in social media for higher stakeholder engagement. By a careful review of literature, we have made propositions for social media posts on the factors influencing stakeholders' engagement rate.

Content type (communication of SDGs)

Firms share posts based on variety of contents including announcement of new service and its promotion, special day celebration, industry information, CSR, as well as communication of adopting and implementing SDGs that is the UN agenda of 2030. However, our point of interest is only communication of SDGs in the social media posts. The posts based on different contents can affect the engagement rate of users. In a study, the authors examined posts of Facebook and find that the stakeholder engagement is significantly influenced by content type of social media posts (Denktaş-Şakar & Sürücü, 2020). Surucu-Balci et al. (2020) examined the Twitter posts and found that content type significantly influences stakeholder engagement. Similarly, the authors find that the level of engagement may change depending on the content of the post whether the post contains information content or entertainment content (Khan et al., 2016). Therefore, we have developed the first proposition.

Proposition 1: Stakeholder engagement rate is significantly influenced by the tweets content type (communication of SDGs).

Industry type of a firm

Social media is used by a range of companies from different industries. In literature, several studies have focused on firms of one particular industry to determine the stakeholder engagement level for the social media posts. For instance, in the study of Denктаş-Şakar and Sürücü (2020), the sample firms are based on top 30 3PL logistics firms. In a study by Surucu-Balci et al. (2020), they included the sample of container lines from business-to-business (B2B) companies. However, they argue that findings may change if the industry type changes. Manetti and Bellucci (2016) also recommend to assess stakeholder engagement by using social media for different sectors/types of organizations. Therefore, by considering these argument and recommendation, we have developed the second proposition.

Proposition 2: Stakeholder engagement rate is significantly influenced by the tweets from different industry type.

Country of a firm

Firms use social media which is a globalized digital platform that connects the world. However, we understand that, despite the use of social media by firms, the firm origin is important as culture is country based and, in each country's setting, users have different characteristics which may differently influence stakeholder engagement. Kumar et al. (2019) argue that there are differences in institutional frameworks at national level and therefore, the interpretation and operationalization of stakeholder management practices are different even with the global nature of CSR. The same applies to the SDGs due to their global nature. Agudo-Valiente et al. (2015) argue that country characteristics influence the perception of CSR activities. Accounting these arguments, we propose that tweets of firms from different countries may have different stakeholder engagement. Therefore, we have developed the third proposition.

Proposition 3: Stakeholder engagement rate significantly influenced by the tweets from firm of different country.

RESEARCH METHODOLOGY

We use Chi-Square Automatic Interaction Detection (CHAID) analysis for the data analysis. This technique employs number of independent variables and only one dependent variable for the posts classification. We explain the sampling procedure, data collection, variables used as well as CHAID analysis in the following sections.

Sampling method and the data

Twitter, that has 330 million monthly users, is one of most used micro-blogging sites (Zephoria, 2019). Bonsón et al. (2016) argue that Twitter, a social media platform, allows firms to get in touch with variety of stakeholders as well as allows engagement with them (Lovejoy et al., 2012). Firms can also run campaigns related to marketing such as advertising as well as activities of public relations (Stelzner, 2018).

In this study our focus is on the firms of European countries. We select the sample of this study by considering those European companies that published a sustainability report on Global Reporting (www.globalreporting.org) for the year 2018. After examining the sustainability reports, we find that there are a total of 302 European firms from 21 European countries. Specifically, we targeted those companies that shared the tweets quoting any of the 17 SDGs meaning that each tweet contains at least one SDG representing that a tweet may contain two or more, or even all the SDGs. We start collecting tweets manually for the time period between January 1, 2019 and December 31, 2019. We complete data collection procedure in June, 2020. By considering these, some of the firms that issued a sustainability report on Global Reporting were excluded from the sample due to their no accounts/pages for those firms on Twitter and even if they have an account/page on Twitter, however, they have not shared any post communicating any of the 17 SDGs (<https://sdgs.un.org/goals>). Therefore, our sample is restricted to 173 firms of the 19 European countries from 8 different industries with the total tweets of 3,045 focusing on at least one of the 17 SDGs (see Table 1 and Table 2).

Data coding

The data coding is done based on the coding protocol of De Vries et al. (2012) and Luarn et al. (2015). Two authors coded the data based on the communication of SDGs variable which is more like a content type variable due to its complexity whereas all the other variables are coded by the single author. The reason is that we gathered only those posts that communicated any of the 17 SDGs. Both authors coded sample firms' tweets that posted between January 1, 2019 and December 31, 2019 separately for the aforementioned variable. The authors made a comparison of their results after the completion of coding, and in case of occurrence of any dispute about the posts that are coded or when one of the authors considered no reference to any SDGs (blank cell), the authors re-examined disputed posts in order to come to consensus. We calculated inter-coder reliability based on Perreault Jr and Leigh's (1989) method and they suggest that the coding result is reliable only when it is between 0.8-1.0. For our coding result, it is 0.98 which fulfills the criteria of coding reliability. In this research, we conduct analysis based on one dependent variable and seven independent variables.

Sr. No.	Country	No. of Companies
1.	Austria	6
2.	Belgium	6
3.	Croatia	1
4.	Czech Republic	2
5.	Denmark	4
6.	Finland	9
7.	France	21
8.	Germany	33
9.	Greece	2
10.	Hungary	1
11.	Ireland	3
12.	Italy	13
13.	Luxembourg	2
14.	Netherlands	10
15.	Portugal	2
16.	Slovenia	1
17.	Spain	15
18.	Sweden	22
19.	United Kingdom	20
	Total	173

Table 1. Sample countries and companies

Independent variables

Communication of SDGs is like a content type variable, and it consists of 17 categories. Tweets were coded based on each SDG category. For instance, if a tweet contains information regarding 1st category of SDGs which is “No Poverty” then it was coded as 1 and so on. There were many cases where a tweet contains at least two SDGs, so in that case we coded each tweet based on how many SDGs it contains. There were also cases when a tweet contains all the SDGs. Therefore, by considering this, communication of SDGs variable is basically based on 17 variables. As we earlier discuss, this variable is more like content type, and Surucu-Balci et al. (2020) in their study used a content type variable for the similar analysis technique.

Country of a firm variable is based on 19 categories as in our sample the tweets are from the firms of 19 different European countries (See Table 1). We include country variable in our analysis to make a comparative analysis among sample countries (Kumar et al., 2019). Industry of a firm contains 8 categories as the tweets are from the firms of 8 different industries (See Table 2). We include industry variable in our analysis to find out which industry posts lead to higher stakeholder engagement as suggested by Surucu-Balci et al. (2020).

Sr. No.	Industry	No. of Companies	No. of Tweets
1.	Energy & Resource Extraction	43	1126
2.	Apparel & Textiles, Consumption	17	188
3.	Financials	24	221
4.	Transportation	22	622
5.	Health Care, Hospitality & Recreation	15	209
6.	Infrastructure	13	80
7.	Resource Transformation	26	464
8.	Technology & Communications	13	135
	Total	173	3,045

Table 2. Sample industry, companies, and tweets

Dependent variable

Stakeholder engagement rate is the dependent variable in our analysis of CHAID decision tree. We calculated the stakeholder engagement rate based on the formula that is developed by Bonsón and Ratkai (2013) and Bonsón et al. (2016) as this formula can be used for the posts of both Twitter and Facebook (See Table 3).

CHAID method

We use CHAID, a decision tree technique used to classify the data and for prediction as well. This method involves statistical analysis but presents visual results that are easy and helpful in interpretation. In CHAID, the whole data set is split into subgroups that are homogenous based on the interaction between the response variable and predictor variables and then it builds non-binary trees (Kass, 1980). CHAID technique can have only one criterion (response) variable and several predicting (explanatory) variables. Waara et al. (2015) discuss that both variables independent and dependent can be either nominal or metric.

CHAID algorithm, according to Ozgulbas and Serhan Koyuncugil (2006), uses chi-square statistic for the nominal dependent variable while for the continuous or metric dependent variable, it uses F tests to partition the dataset. Nodes splitting criteria, based on conventions, is set at the 0.05 level of significance. There are three categories of nodes in the CHAID analysis which are root, parent and child nodes. The first node in the CHAID which appears on top is root node and it is based on whole sample. The partitioned nodes, if are further split into subgroups, are called parent nodes. However, the group is named child node if no more split occurs. Although our sample is large, however, due to inclusion of industry variable as independent variable, we have adjusted the smaller parent/child node ratio as 60/30 to make the tree growth more aggressive (McCormick & Salcedo, 2017). This represent that in our analysis 60 is the lowest possible number for a parent node and similarly, 30 is the lowest possible

number for a child node. The depth of tree is adjusted to maximum of five as well to let the tree more aggressively representing that when the tree splits into five layers then further splitting stops. CHAID analysis is conducted by using version 20 of SPSS.

In the literature for social media studies, only Surucu-Balci et al. (2020) have employed CHAID technique in order to examine which type of post group leads to higher engagement.

Measures	Formula	Description
Popularity (P2)	Total likes / total tweets	Average number of likes per tweet
Popularity (P3)	$(P2 / \text{total followers}) \times 1,000$	Average number of likes tweet per 1,000
Commitment (C2)	Total comments / total tweets	Average number of comments per tweet
Commitment (C3)	$(C2 / \text{total followers}) \times 1,000$	Average number of comments tweet per 1,000
Virality (V2)	Total re-tweets / total tweets	Average number of re-tweets per tweet
Virality (V3)	$(V2 / \text{total followers}) \times 1,000$	Average number of re-tweets tweet per 1,000

Table 3. Formula for the calculation of stakeholder engagement rate

DATA ANALYSIS AND DISCUSSION

The results of descriptive statistics show that energy and resource extraction sector has a higher number of tweets that are 37% stating that this sector is focusing more on communication of SDGs than other sectors followed by the transportation (20.4%) and resource transformation (15.2%) sectors respectively. Regarding country wise descriptive statistics, German firms are focusing more on communication of SDGs as it contributes around 22.4% among our sample countries followed by the France (16.2%), United Kingdom (13.2%), Spain (8.7%), Italy (8.3%) and Sweden (8%) respectively.

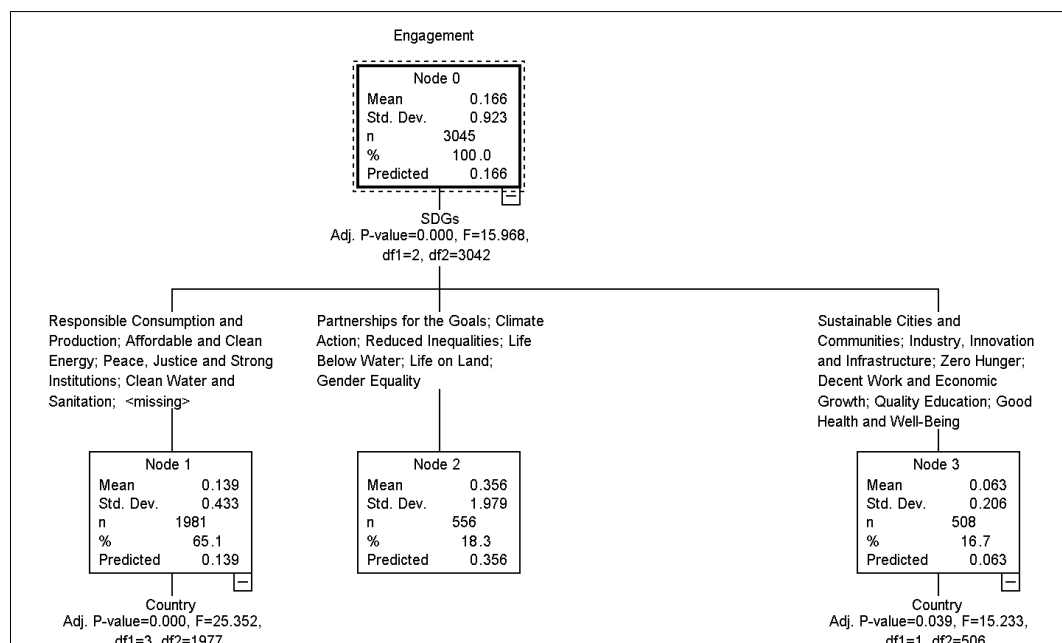
The descriptive statistics of SDGs indicate that in our sample, SDGs have been communicated by firms equals to 6,363. However, the total number of tweets in our sample is 3,045. The reason is, as earlier discussed in section 3 “methodology”, each tweet contains at least one SDG representing that a tweet may contain two or more, or even all the SDGs. Therefore, by performing content analysis on the tweets, we have found that firms have communicated SDGs 6,363 times in the sample of 3,045 tweets. Further, the analysis illustrates that SDG number 9 which is industry, innovation and infrastructure is the most communicated SDG (19%) amount our sample firms and countries. The second most communicated SDG is responsible consumption and production (18.7%) followed by the climate action (16.8%). Affordable and clean energy is fourth more communicated SDG (11.1%) in our sample.

CHAID decision tree results

The results of CHAID decision tree, as shown in Figure 1, 2 and 3 significantly formed 18 nodes which are classified as 1 root, 6 parent and 11 child nodes. Node 1, among the parent nodes, is the largest one with 1981 posts whereas Node 15 is the smallest one with 154 posts. Among the child nodes, Node 10 is largest one with 1047 posts whereas Node 14 is the smallest one with 33 posts.

The results show that the average value of stakeholder engagement rate is 0.166 for the overall sample of 3,045 tweets. All the independent variables significantly partition the dataset including SDGs, country of a firm, and industry of a firm. The CHAID results show that SDGs is the first significant predictor for the engagement level. As displayed in Figure 1, tweets that have SDGs of partnerships for the goals; climate action; reduced inequalities; life below water; life on land; and gender equality, Node 2, with the mean value of 0.356, lead to greater stakeholder engagement in comparison to those with other SDGs that are responsible consumption and production; affordable and clean energy; peace, justice and strong institutions; and clean water and sanitation, Node 1 (mean = 0.139) and SDGs of sustainable cities and communities; industry, innovation and infrastructure; zero hunger; decent work and economic growth; quality education; and good health and well-being, Node 3 (mean = 0.063).

The posts in Node 1 and 3 are separated into country. The posts with SDGs of responsible consumption and production; affordable and clean energy; peace, justice and strong institutions; and clean water and sanitation (Node 1) are split into four by country. The Figure 2 shows that posts from the firms of Luxembourg, Greece, Czech Republic and Hungary (Node 5) leads to higher engagement with stakeholders (mean = 0.579) followed by the firms from Sweden, Denmark and Ireland (Node 7) have a mean value of 0.215, firms from Spain, Finland, Austria, Portugal and Belgium (Node 6) have a mean value of 0.157, and firms from Italy, United Kingdom, Germany, France and Netherlands (Node 4) have a mean value of 0.100 respectively, for communicating these SDGs.



Notes: Node 1 is split into four subgroups as shown in Figure 2 and Node 3 is split into two subgroups as shown in Figure 3
 Figure 1. CHAID Decision Tree (1st part *)

* The CHAID decision tree is separated into three figures due to its large size and therefore, it is displayed in three parts.

The Figure 2 illustrates that, communication of SDGs significantly partitions Node 4. The SDGs, responsible consumption and production; decent work and economic growth; reduced inequalities; and peace, justice and strong institutions (Node 11) result in higher stakeholder engagement (average = 0.194) than the SDGs of sustainable cities and communities; affordable and clean energy; life on land; industry, innovation and infrastructure; quality education; gender equality; climate action; partnerships for the goals; good health and well-being; no poverty; clean water and sanitation; life below water; and zero hunger (Node 10) with a mean value of 0.085.

The industry variable, as illustrated in Figure 2, significantly splits Node 6. Posts from the industries including apparel & textiles, consumption; financials; and transportation (Node 13) have significantly higher engagement level (mean = 0.409) while posts from energy & resource extraction; health care, hospitality & recreation; infrastructure; resource transformation; and technology & communications industries (Node 12) have a mean value of 0.119.

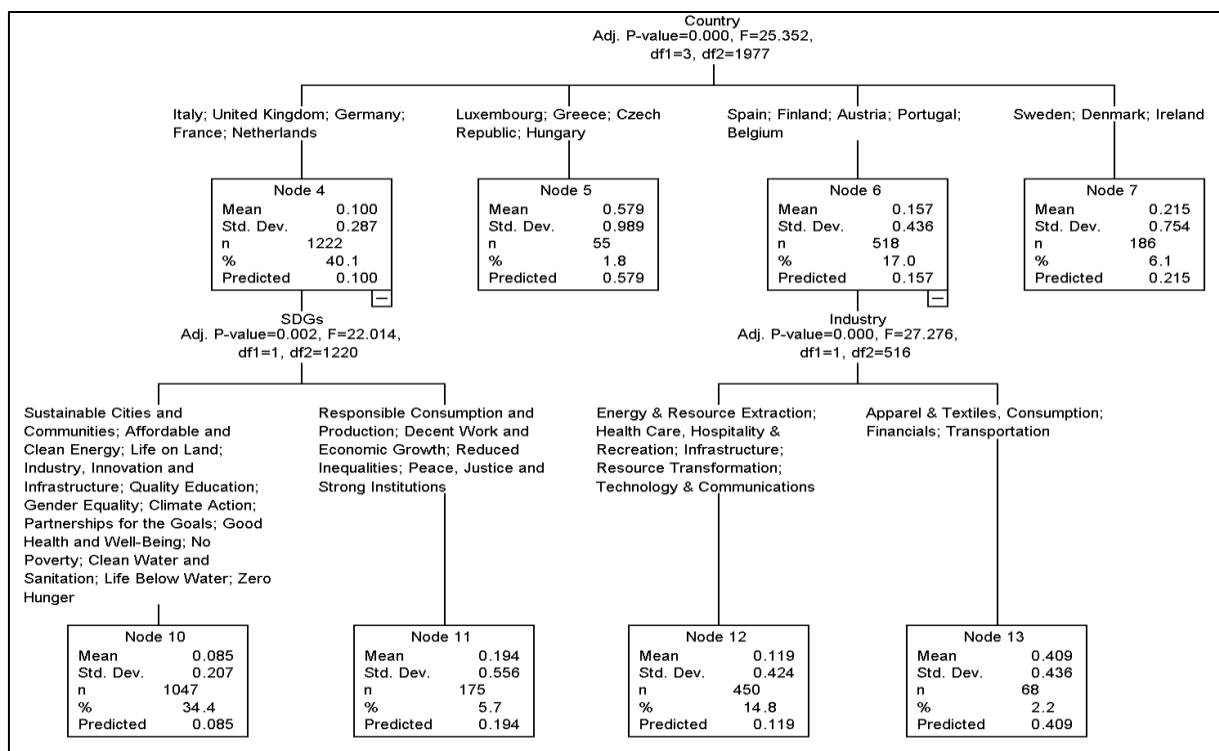


Figure 2. CHAID Decision Tree (2nd part)

On contrary, the tweets which communicate SDGs of sustainable cities and communities, industry, innovation and infrastructure, zero hunger, decent work and economic growth, quality education, and good health and well-being (Node 3) are split into two by country, as shown in Figure 3. Tweets from the firms of United Kingdom, Spain, Germany, Finland, Greece, Sweden, Austria, Belgium, Denmark, and Netherlands (Node 9) have significantly higher engagement level (mean = 0.090) whereas posts from the firms of Italy, France, and Ireland (Node 8) have a mean value of (0.016). The communication of SDGs significantly splits Node 8. The communication of SDGs in posts including sustainable cities

and communities; decent work and economic growth; and good health and well-being (Node 14) lead to higher stakeholder engagement (mean = 0.040) in comparison to those posts that communicate SDGs of industry, innovation and infrastructure; zero hunger; and quality education (Node 15) with a mean value of 0.011. Node 15 is split into two by the industry variable. Posts from firms of energy & resource extraction; apparel & textiles, consumption; health care, hospitality & recreation; infrastructure; resource transformation; and technology & communications industries (Node 16) have higher engagement level (mean = 0.032) while posts from transportation firms (Node 17) have a mean value of 0.006.

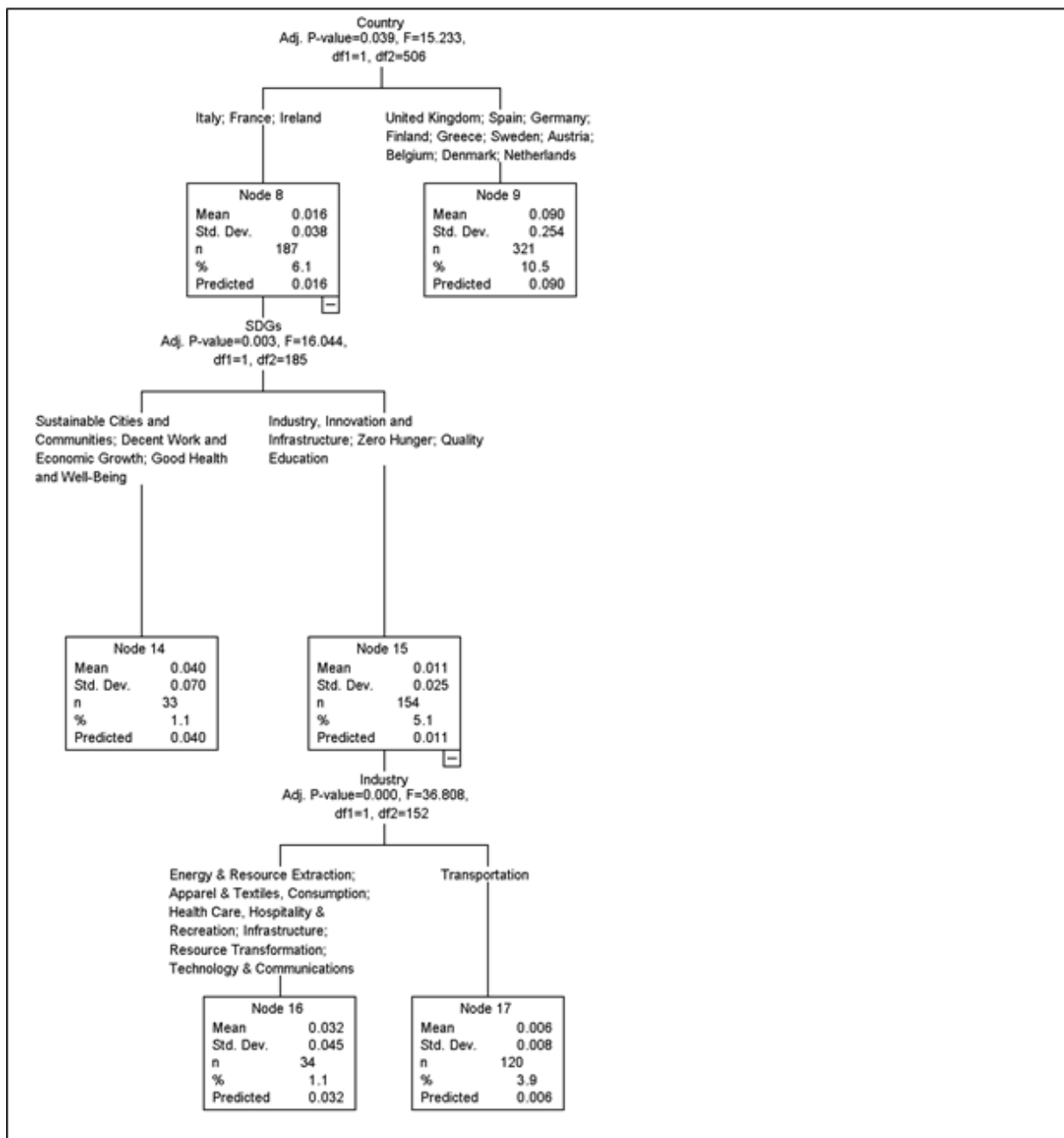


Figure 3. CHAID Decision Tree (3rd part)

Discussion

Based on the findings, this study represents that by using the social media, the favorable outcome of stakeholder engagement for firms is influenced by different characteristics of the posts that are shared.

The content type of posts based on communication of SDGs significantly affects the stakeholder engagement rate. Particularly, the SDGs of partnerships for the goals; climate action; reduced inequalities; life below water; life on land; and gender equality result in higher stakeholder engagement rate than any other SDGs. These SDGs are considered as most important group of SDGs that relate to environmental and social factors. Based on these results, stakeholders engage more with those firms that focus more on societal and environmental issues. This finds support in the extant literature suggesting that messages that include society and societal benefits are related to increased stakeholder engagement (Saxton et al., 2020; Wang & Huang, 2018; Xu & Saxton, 2019). The second most significant group of SDGs that lead to higher engagement rate is responsible consumption and production; affordable and clean energy; peace, justice and strong institutions; and clean water and sanitation. The group of SDGs that leads to least engagement rate are sustainable cities and communities; industry, innovation and infrastructure; zero hunger; decent work and economic growth; quality education; and good health and well-being. These results are in line with the studies of Denктаş-Şakar and Sürücü (2020), Surucu-Balci et al. (2020) and Wang & Huang, 2018), as they find that the stakeholder engagement is significantly influenced by the content type of social media posts.

Our CHAID analysis present that the industry type and country of a firm also significantly influence stakeholder engagement rate. With respect to industry type, as the sample firms in our study are from 8 different industries, we find that posts by the firms of apparel & textiles, consumption; financials; and transportation industries lead to higher engagement than the other industries. These results support the argument of Surucu-Balci et al. (2020) that industry type may have different stakeholder engagement as suggested by Manetti and Bellucci (2016). Regarding country of a firm, posts from the firms of Luxembourg, Greece, Czech Republic and Hungary among the 19 European countries result in higher stakeholder engagement rate. These results support our proposition that posts from the firms of different countries have different stakeholder engagement. These results support the arguments that country characteristics influence the perception of CSR activities (Agudo-Valiente et al., 2015). There are differences in institutional frameworks at national level and therefore, stakeholder management practices are being interpreted and operationalized differently even with the global nature of CSR (Kumar et al., 2019).

CONCLUSION

We considered the social media, namely Twitter, as the stakeholder engagement channel for firms to determine which social media posts characteristics could result in higher stakeholder engagement in the European context. Specifically, we determine which (or which group) of the 17 SDGs lead to higher stakeholder engagement among different industries across 19 European countries. We use CHAID analysis to analyze the data. Based on CHAID analysis, we find that tweets characteristics such as content type (communication of SDGs), industry type and country of a firm significantly influence stakeholder engagement rate.

This study contributes to literature in a number of ways. First, we use social media channel to assess the stakeholder engagement, thus contributing to the stakeholder engagement debate. Second, to the best of our knowledge, this is the first study which considers the communication of SDGs by the firms to determine which SDGs are considered most important and lead to higher stakeholder engagement. Third, our study extends the analysis in case of industries and countries as we focus on 8 different industries from 19 European countries. This broader analysis could have substantial impact for the firms as well as for wide variety of stakeholders. Lastly, to the best of our knowledge, this is the first study which employs decision tree methodology for the business-to-consumer (B2C) firms to classify social media posts in order to identify which group of posts results in higher engagement rate.

Practical and social implications

The findings of this study have several implications for practitioners and society. First, from a managerial perspective, we provide evidence for companies and managers to better communicate their messages in the context of achieving increased stakeholder engagement. Driving on important communication tips, such as keeping messages short and including country and industry sensitive content, can help companies keep their stakeholders engaged and will consequently result in successful SDGs achievement. Moreover, considering that specific groups of SDGs, respectively partnerships for the goals; climate action; reduced inequalities; life below water; life on land; and gender equality, achieve higher engagement rates in specific countries and in different institutional contexts (Schröder, 2021), the findings are relevant to address the right communication messages, thus contributing to improved stakeholder engagement resulting in better sustainability reports. Second, considering that the SDGs achievement are subject to improved reputation for firms (Grover et al., 2019) and thus implying several benefits in terms of firm profitability and longevity (Saxton & Guo, 2020), this study is of relevant interest to all companies across different industries and different cultural and institutional contexts. We can imply this contribution as accounting on a sample of 8 different industries in 19 European countries, and moreover, drawing on the assumption that its findings are generalizable not only to all European countries, but also to other continents.

Further, this study has implications for the entire society and the planet, thus contributing to benefits coming from sustainable production and consumption, sustainable cities, improved health, reduced poverty, climate mitigation, etc. The set of benefits for the society and the planet, will be exclusively achieved through engagement for the goals, as set by the UN Agenda 2030. Under these circumstances, this study hopes to bring more value for the sustainable world.

Our study also has some limitations. We consider only one social media platform that is Twitter. Therefore, future studies may focus on other social media platforms such as Facebook and Instagram. Additionally, as complementary to our research, future research is needed to determine which of the 17 United Nations (UN) Sustainable Development Goals (SDGs) result in greater stakeholder engagement. Lastly, this study only considered the European context, while further research could be addressed by considering other continents as well as making comparative analysis across continents.

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FROM ENTREPRENEURIAL ORIENTATION TO EXPORT PERFORMANCE: THE MEDIATING EFFECT OF ORGANIZATIONAL AND TECHNOLOGICAL RESOURCES AND DYNAMIC CAPABILITIES

Monteiro, Albertina Paula; Rua, Orlando Lima

CEOS.PP/ISCAP/Polytechnic of Porto, Portugal

ABSTRACT

This study aims to evaluate the relationship between entrepreneurial orientation, resources, capabilities and export performance.

We have used a quantitative methodological approach with a survey questionnaire, conducting an empirical study based on a sample of 265 Portuguese exporting firms. Structural equation modeling analysis was used on it.

The results show that (1) entrepreneurial orientation enhances the attraction organizational and technological resources, (2) organizational resources positively influence the presence of technological resources, (3) entrepreneurial orientation does not influence dynamic capabilities, (4) the presence of organizational and technological resources are na important factor in the development of dynamic capabilities, (5) entrepreneurial orientation has a direct effect on export performance, (6) dynamic capabilities contribute to the transformation of organizational resources into superior export performance levels, and (7) organizational and technological resources, and dynamic capabilities mediates the relationship between entrepreneurial orientation and export performance.

The main contribution is the study of the mediating effect of organizational and technological resources and dynamic capabilities on the relationship between entrepreneurial orientation and export performance.

Keywords: *entrepreneurial orientation, RBT, DCV, export performance, structural equation modeling.*

INTRODUCTION

The purpose of this study is to evaluate the relationship between entrepreneurial orientation, resources, capabilities and export performance.

Entrepreneurial orientation (EO) has been widely conceived as a firms' strategic position, which, through innovations, proactiveness and taking risks through courses of action whose results are

uncertain, allows them to behave entrepreneurially (Chen & Hsu, 2013; Covin & Wales, 2012; Lumpkin & Dess, 1996). Several scholars argue that EO portends superior performance to firms that adopt it (Wiklund & Shepherd, 2005), in which to successfully consult the effects of EO's performance it is necessary to consider external factors and internal to the business environment (Monteiro, Soares & Rua, 2013, 2017a). Therefore, there are interrelated factors that influence the EO-performance relationship, thus justifying the need to assess interrelationships with other variables to better clarify this relationship (Rauch, Wiklund, Lumpkin & Frese, 2009; Wiklund & Shepherd, 2005).

Resource-Based Theory (RBT) holds that competitive advantage is generated by the existence of strategic resources (and capabilities) in the firm (Barney, 1991). At the international level, business managers must compete to the best of their ability considering the resources available in foreign markets (Morgan, Vorhies & Schlegelmilch, 2006). Indeed, the RBT postulates that organizational factors determine the entry into foreign markets as well as international performance (Abosede, Fayose & Eze, 2018). Recently, research has focused on Dynamic Capabilities View (DCV). DCV maintains that competitive advantage stems not only from resource ownership but also from resource configurations based on dynamic capabilities (Cavusgil, Seggie & Talay, 2007; Rua, 2018a, 2019). DCV emerges from the limitations of RBV to properly explain how firms can achieve competitive advantage in rapidly changing and unexpected environments (Teece, Pisano & Amy, 1997; Eisenhardt & Martin, 2000; López, 2005; Teece, 2007; Wu, 2010). Breznik, Lahovnik and Dimovski (2019) empirically find that when firms exploit dynamic capabilities they have the potential to achieve sustainable competitive advantage. In the field of internationalization, the scant adoption of this approach in empirical studies has been noted and its importance highlighted, as the international business environment and industry structures change very rapidly and unpredictably (Hung-Hsin & Lee, 2009).

While in previous studies the mediating effect of (1) EO and dynamic capabilities in the relationship between intangible resources and export performance was analyzed (Monteiro, Soares & Rua, 2017a), (2) organizational resources and dynamic capabilities in the relationship between entrepreneurial orientation and export performance was assessed (Monteiro, Soares & Rua, 2017b) and (3) dynamic capabilities in the relationship between intangible resources, entrepreneurial orientation and export performance was also analyzed (Monteiro, Soares & Rua, 2019), this study considers EO as a purely explanatory variable and export performance as a purely explained variable, deriving its novelty from the fact that it simultaneously considers organizational and technological resources and dynamic capacities as mediating variables of this relationship.

THEORETICAL BACKGROUND

Some scholars have analyzed the dimensions that characterize entrepreneurial orientation. Miller (1983) provides a good starting point by suggesting that entrepreneurial orientation includes three fundamental dimensions: innovation, risk-taking and proactivity. Subsequently, two other dimensions to characterize the entrepreneurial process are proposed: competitive aggressiveness and autonomy (Lumpkin & Dess, 1996). However, the literature indicates that the most commonly used dimensions in business research are innovation, proactivity and risk-taking (Gupta, 2019, Linton, 2019; Okangi, 2019).

Dhanaraj and Beamish (2003), in the framework of resources and capabilities theory, identify three sets of resources that condition and / or reinforce the international strategy of US and Canada-based exporting small and medium enterprises (SMEs), namely entrepreneurial orientation, organizational resources, and technological resources. On the other hand, the literature suggests that resources and capabilities are interrelated (Dhanaraj & Beamish, 2003; Morgan, Kaleka & Katsikeas, 2004) and that entrepreneurial orientation is a capability that can attract resources needed to exploit opportunities (Alvarez & Busenitz, 2001; Rua & França, 2017). Therefore, it is the objective of this study to analyze how entrepreneurial orientation influences or enhances the attraction of organizational and technological resources and how organizational resources contribute to the presence of technological resources. Thus, we have as hypotheses of work:

H1: Entrepreneurial orientation has a positive effect on organizational resources.

H2: Entrepreneurial orientation has a positive effect on technological resources.

H3: Organizational resources have a positive effect on technological resources.

According to Eisenhardt and Martin (2000, p. 1106), "First, dynamic capabilities consist of specific strategies and organizational processes, like product development, alliancing, and strategic decision making that create value for companies within dynamic markets by manipulating resources into new value-creating strategies. (...) Second, these capabilities, which often have extensive empirical research streams associated with them, exhibit commonalities across effective firms or what can be termed 'best practice.'. Third, effective patterns of dynamic capabilities vary with market dynamism". RBT maintains that competitive advantage derives from resource ownership, and DCV assumes that competitive advantage is based not only on the exclusivity of a firm's resources but also on the resources' configurations built on dynamic capabilities (Cavusgil et al., 2007). Lawson and Samson (2001) indicate that entrepreneurial orientation, understanding the characteristics of innovativeness, proactiveness, and risk-taking, has a significant impact on the development of dynamic capabilities.

Jiao, Wei and Cui (2010) find a positive and significant relationship between these two dimensions. In this context, we formulate the following hypothesis:

H4: Entrepreneurial orientation has a positive effect on dynamic capabilities.

It is also intended to analyze how dynamic organizational capabilities are enhanced by the presence of organizational and technological resources, since, according to Wu and Wang (2007), resource integration, reconfiguration and learning only become meaningful when resources themselves are abundant since the development of dynamic capabilities depends upon the resources available within firms (Madsen, Alsos, Borch, Ljunggren & Brastad, 2007; França & Rua, 2018). Thus, we intend, like these authors, to test the following research hypotheses:

H5: Organizational resources have a positive effect on dynamic capabilities.

H6: Technological resources have a positive effect on dynamic capabilities.

Some scholars (e.g., Teece, 2007; França & Rua, 2017; Rua, 2020) argues that dynamic capabilities enable firms to achieve superior long-term performance. Wu (2006), within technology-based firms and the domestic market, finds a positive relationship between dynamic capabilities and performance. In the context of international business, we intend to support the following hypothesis:

H7: Dynamic capabilities have a positive effect on export performance.

This study assumes that entrepreneurial orientation enhances the attraction of other resources and capabilities essential to export performance. This study also aims to analyze the direct impact of entrepreneurial orientation on export performance to identify the additional value created on export performance by these resources and capabilities. Some scholars show the existence of a positive relationship between EO and performance (Jiao et al., 2010; Hernández-Perlines & Cisneros, 2017; Sakhdari & Farsi, 2016). Thus, we formulate the last hypothesis of research.

H8: Entrepreneurial orientation has a positive effect on export performance.

METHODOLOGY

In this study, a quantitative methodological approach is adopted using the questionnaire method, a situation that is in line with most studies in the literature on export performance (Sousa et al., 2008). The questionnaire comprises the following measurement scales with a 7-point Likert scale (Table 1).

Table 1. Measurement scales used in the questionnaire

Construct	References
Entrepreneurial orientation	Covin and Slevin (1989)
Organizational resources	Morgan et al. (2006)
Technological resources	Rodríguez and Rodríguez (2005) and Zahra (2008)
Dynamic capabilities	Wu and Wang (2007)
Export performance	Okpara (2009)

Source: Own elaboration.

The data collection started in November 2011 and ended in February 2012, having been validated a sample with 265 observations in which it was confirmed that the respondents were responsible for the firm's international activity. The response rate was 18%, considered quite satisfactory according to the suggestion of Menon, Bharadwaj, Adidam and Edison (1999). The statistical software SPSS (version 19) and LISREL (version 8.8) were used in the data analysis.

RESULTS

Descriptive statistics

The results are based on responses by top managers from 265 exporting firms from various industries in Northern Portugal (44 from the textile industry, 18 from the shoe industry, 15 from industrial equipment and products, 14 from furniture, 13 from home clothing and the rest of several other industries). In what concerns the size of the firms, most are small and medium companies (78,1%), large companies are 8,7% and micro companies are 13,2% of the sample. Of the respondent companies, 76.2% have been on the market for more than 15 years, while 1.1% have existed for less than 1 year, 2.7% between 3 and 5 years and 20.00% between 6 and 15 years. Regarding export activity, 49,1% have been exporting for more than 15 years, 33% for 6-15 years, 13,2% for 3-5 years and 4,5% for less than 3 years. Additionally, 52,8% of the firms export more than 40% of the total sales and 44,2% export to 6-15 countries.

These results reinforces that "having previous experience from foreign markets could have some benefits for further exporting" (Lukason & Vissak, 2020, p. 66).

Structural equations modeling

We evaluated the measurement model in terms of unidimensionality, reliability and construct validity (convergent and discriminant). Table 2 provides the results of the measurement model evaluation. In first-order models, all items report statistically significantly on the respective factors, demonstrating the unidimensionality of the single factor and all loadings of the observed variables have values greater than 0.70, demonstrating the convergent validity of the constructs (Garver & Mentzer, 1999).

All latent variables have good levels of composite reliability, with values greater than 0.60, which proves the reliability of the scales (Bagozzi & Yi, 1988). The average variance extracted is greater than 0.50, showing the discriminant validity of the constructs (Fornell & Larcker, 1981). In second-order models (entrepreneurial orientation), the statistical significance of associations between first and second-order factors is confirmed. That is, the coefficients exceed the minimum threshold of 0.40, confirming the convergent construct validity (Nunnally & Bernstein, 1994), and the correlation square is smaller than the average variance extracted for each factor, evidencing the discriminant validity of the construct (Fornell & Larcker, 1981).

Table 2. Results of the measurement model

Construct and items	Standardized loading
Entrepreneurial Orientation	
Innovation (CR=0.87, AVE=0.71) In the past 5 years, the company has launched very new lines of products or services.	0.82
In the past 5 years, the company changes in product or service lines have usually been quite dramatic.	0.86
Proactiveness (CR=0.82, AVE=0.64) In dealing with its competitors, my firm typically initiates actions that competitors respond to.	0.72
In dealing with its competitors, my firm is very often the first business to introduce new products/services, administrative techniques, operating technologies, etc.	0.80
Risk-taking (CR=0.87, AVE=0.71) In general, the top managers of my firm have a strong proclivity for high-risk projects (with chances of very high returns).	0.80
In general, the top managers of my firm have owing to the nature of the environment. Bold, wide-ranging acts are necessary to achieve the firm's objectives.	0.93
When confronted with decision-making situations involving uncertainty, my firm typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities.	0.78
First- and second-order factors	
Innovation – Entrepreneurial orientation	0.64
Proactiveness – Entrepreneurial orientation	0.76
Risk taking – Entrepreneurial orientation	0.57
Organizational Resources	
Reputation (CR=0.91, AVE=0.78) Brand reputation	0.84
Appeal to the personality of the brand	0.92
Strength of our brand image	0.89
Financial resources (CR=0.93, AVE=0.82) Access to capital	0.91
Speed of acquiring and deploying financial resources	0.94
The volume of financial resources dedicated to the main product / market.	0.87
Informational resources (CR=0.89, AVE=0.80) Export market information	0.92
Knowledge of competitors in this export market	0.87
Relational resources (CR=0.84, AVE=0.73) Quality of the relationship with the channel in the main market	0.90
Duration of relationships with our current distributors in this market	0.80
Human resources (CR=0.84, AVE=0.73) Quality	0.93

Experience	0.77
Cultural resources (CR=0.92, AVE=0.85)	
International orientation of our corporate culture	0.92
Strength of our corporate culture	0.92
Technological resources (CR=0.80, AVE=0.59)	
It invests heavily in research and development	0.86
It offers products with complex design and configurations	0.71
It is in the phase of growth of its life cycle	0.59
It has more patent registration (protection of technologies)	0.65
First- and second-order factors	
Reputation – Organizational resources	0.65
Financial resources – Organizational resources	0.54
Informational resources - Organizational resources	0.76
Relational resources- Organizational resources	0.84
Human Resources - Organizational resources	0.85
Culture - Organizational resources	0.87
Dynamic Capabilities (CR=0.94, AVE=0.84)	
Resource integration capability	0.86
Resource reconfiguration capability	0.95
Learning capability	0.93
Export Performance (CR=0.92, AVE=0.79)	
We have achieved rapid growth in our export activities in the last three years.	0.94
We have expanded our operations in the last three years.	0.92
Overall the performance of our firm has been very satisfactory.	0.81

Notes: CR = composite reliability; AVE = average variance extracted.

All loadings are statistically significant at $p < 0.001$.

Source: Own elaboration.

To test the proposed hypotheses, we estimated the structural model. Parameter analysis confirms the fit of the model ($\chi^2(47) = 106.80$, $p < 0.05$, CFI = 0.98, GFI = 0.94, NNFI = 0.97, RMSEA = 0.069).

Table 3 presents the results of the hypothesis tests.

Table 3. Assumptions and results tested (direct effect)

Parameters	Coefficients Standardized	T	R ²	Hypotheses	Results
Entrepreneurial Orientation - Organizational Resources	0.54	5.53	0.28	H1	Supported
Entrepreneurial Orientation - Technological Resources	0.59	6.49	0.47	H2	Supported
Organizational Resources - Technology Resources	0.18	2.49		H3	Supported
Entrepreneurial Orientation - Dynamic Capabilities	-0.09	-1.14	0.66	H4	Not supported
Organizational Resources - Dynamic Capabilities	0.78	8.97		H5	Supported
Technological Resources - Dynamic Capabilities	0.14	2.24		H6	Supported
Dynamic Capabilities - Export Performance	0.23	3.84		H7	Supported
Entrepreneurial Orientation - Export performance	0.49	6.14	0.39	H8	Supported

Note: (*) Sig. value $p < 0.001$; (**) Sig. value $p < 0.01$.

Source: Own elaboration.

The results show that: (1) entrepreneurial orientation influences or enhances the attraction of resources (organizational resources and technological resources), (2) organizational resources contribute to the presence of technological resources, (3) organizational and technological resources contribute to the development of dynamic capabilities and (4) dynamic capabilities and technological resources contribute directly to export performance. However, we find that entrepreneurial orientation is not directly associated with dynamic capabilities.

In addition, we tested the mediating effect of organizational resources, technological resources, and dynamic capabilities. We tested the significance of the mediating effect using the Aroian test (Baron & Kenny, 1986). Results show that entrepreneurial orientation does not have a direct effect on dynamic capabilities, it has an indirect impact through organizational resources of 0.42 (0.54×0.78) and technological resources of 0.08 (0.59×0.14). Organizational resources also have an indirect effect on dynamic capabilities through technological resources of 0.03 (0.18×0.14). Standardized Total Effects of entrepreneurial orientation on dynamic capabilities is of 0.53 ($0.42 + 0.08 + 0.03$). It should be noted that the total effects result from the sum of direct and indirect effects.

The indirect effect of organizational resources on export performance through dynamic capabilities is 0.18 (0.78×0.23) and through technological resources and dynamic capabilities is 0.01 [$(0.18 \times 0.14 \times 0.23)$], with a total and indirect effect of 0.19 ($0.18 + 0.01$).

Entrepreneurial orientation has a direct effect on export performance, with a standardized coefficient of 0.49. However, the standardized total effect is 0.61. The indirect effect across organizational resources and dynamic capabilities is 0.10 [$(0.54 \times 0.78 \times 0.23)$] and across technological resources and dynamic capabilities is 0.02 [$(0.59 \times 0.14 \times 0.23)$]. This means that guidance enhances the attraction of resources and capacities which consequently has an additional effect on export performance. According to Marôco (2010), the indirect effect is significant if the existing paths in the model are statistically significant, not justified by the Aroian significance test developed by Baron and Kenny (1986).

DISCUSSION AND CONCLUSIONS

Economic growth in countries based on business expansion requires a superior understanding of the predictors of international performance (Sousa et al., 2008). Several studies have been developed in order to identify the determinants that positively contribute to export performance, in order to point which resources and capabilities help firms to build sustainable competitive advantage and superior performance in international markets (Monteiro, Soares & Rua, 2017a; Monteiro, Soares & Rua, 2017b; Rua, 2018b; Rua, França & Fernández, 2018).

This study proposes and tests a model whereby resources and capabilities mediate the effect of entrepreneurial orientation on export performance.

A survey was conducted with top managers of 265 exporting firms that validated the six direct relationships and the three proposed mediator relationships. We found that: (1) entrepreneurial orientation positively influence the presence of organizational and technological resources, (2) organizational resources have a positive of technological resources, (3) entrepreneurial orientation does not influence dynamic capabilities, (4) organizational and technological resources enhances the development of dynamic capabilities, (5) entrepreneurial orientation has a direct effect on export performance, (6) the presence of dynamic capabilities are and important contribution to the transformation of organizational resources into superior export performance levels and (7) organizational and technological resources and dynamic capabilities mediates the relationship between entrepreneurial orientation and export performance.

The influence of entrepreneurial orientation on performance is consistent with several studies (e.g., Miller, 1983; Covin & Slevin, 1989; Covin et al., 1990; Lumpkin & Dess, 1996; Kollmann & Stöckmann, 2014; Kantur, 2016, Monteiro, Soares & Rua, 2017b). Specifically, entrepreneurial orientation allows the creation and coordination of organizational, and technological resources and the development of capabilities, sustaining long-term export performance (Teece, 2007). Like Madsen et al. (2007), we confirm the link between entrepreneurial orientation, resources and capabilities. Entrepreneurial orientation can be seen as a specific dynamic capability to identify entrepreneurial opportunities and deploy resources (Alvarez & Busenitz, 2001).

Morgan et al. (2004) report that resources and capabilities are connected. The results expressed are thus consistent with previous studies in this field (Morgan et al., 2004; Wu, 2006; Wu & Wang, 2007; Lin & Wu, 2014). Wu (2006) further confirms the influence of resources on dynamic capabilities, as well as the assumption that capabilities succeed to resources (Morgan et al., 2004). On the other hand, the impact of dynamic capabilities on export performance is also consistent with the results of some scholars (e.g., Wu, 2006; Wu & Wang (2007), considering dynamic capabilities as a transformer to convert resources with higher performance (Lin & Wu, 2014). Additionally, we confirm the mediating role of dynamic capabilities in the relationship between resources and export performance (Monteiro et al., 2017a,b). Thus, these results contribute to filling lacks in the literature regarding the need to deepen studies on the export performance that consider the effects of mediating variables (Sousa et al., 2008).

There are also important theoretical and practical implications to highlight:

First, these findings are relevant to the literature on Entrepreneurship, RBT, and DCV, as they reinforce the theory that entrepreneurial orientation, resources, and capabilities can enhance export performance. Second, the present study provides support for these principles in the context of international markets.

Second, regarding managerial implications, these findings show the need to develop resources (organizational and technological) and dynamic capabilities. Thus, we can conclude that entrepreneurial orientation has a positive effect on the resources, emphasizing the fact that the organizational and technological resources and the dynamic capacities mediate the relationship between entrepreneurial orientation and export performance, deepening the capacity to integrate, reconfigure, learn and respond to constant environmental changes, many of which enhance the identification and exploitation of new business opportunities. Therefore, the development of firms' resources and dynamic capabilities by managers is central to improve superior export performance through entrepreneurial orientation, where innovation, proactivity and risk-taking play an important role in the identification and exploitation of international business opportunities abroad.

The implications for public bodies are also highlighted. Public entities must adopt policies that allow the development of firms' resources and dynamic capabilities, to promote their entrepreneurial orientation in highly competitive and turbulent environments. This must, therefore, imply the development of programs and support systems for firms so that they can present in export markets with strong resources and dynamic capacities that allow them to compete with greater competence, where communication, sharing and learning shared in-network are decisive.

This study has some limitations that must be taken into account. (1) the use of 7-point Likert scales can cause a potential bias given that most answers are based on subjective judgments of the interviewees, (2) the sample is not representative of the population and (3) it was only collected the opinion of one person per firm, which may not reflect the export activity of the firm as a whole. These limitations lead to some caution in the interpretation and generalization of the results. Improving competitiveness and export performance requires knowledge and deepening of entrepreneurial orientation, resources and dynamic capabilities, so that managers, public institutions and researchers can contribute to these purposes.

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IS CULTURE TO BLAME FOR SINO-FOREIGN CARGO AIRLINE FAILURES?

Neuhuber, Michael

School of Mathematics, Computer Science and Engineering, City, University of London, London, UK

ABSTRACT

Purpose – This paper investigates the role intercultural tensions played in the demise of international joint venture (IJV) cargo airlines in China. It identifies key themes that emerged in collaborations between Chinese and their foreign airline partners.

Design/methodology/approach – The qualitative study employs thematic analysis to examine interview transcripts with senior industry representatives concerning the feasibility of cross-border joint venture airlines from a cultural perspective.

Findings – The results of this analysis stress the pivotal effects friction between stakeholders of different ethnic and cultural backgrounds had on the management of the IJV airlines. The findings reveal difficulties caused by hidden underlying aims of stakeholders, a latent mistrust between Chinese and non-Chinese actors, and an inadequate understanding of the interconnections between business and politics in China by foreign managers.

Practical implications: Accepting that cultural challenges are inherent to international collaborations, mitigation strategies grounded in the research findings are proposed. Knowledge of foreign managers concerning the host country's formal and informal business etiquettes, strategies to manage the changing and opaque aims of stakeholders, and the establishment of distinct company culture are essential to improving the prospects of future IJV cargo airlines.

Originality/value – The paper extends the academic body of knowledge by establishing a link between the national culture of the stakeholders and the survivability of international joint venture cargo airlines in China's emerging economy; to the best of our knowledge, this has not been examined in prior studies.

Keywords: Air cargo, Joint ventures, China, Cultural differences, Human factors, Template analysis.

INTRODUCTION

Since China's adoption of a neoliberal development model in 1978, it ascended to a leading economic power in just four decades (Huang, 2013). In 2019 only the United States of America (US) achieved a higher gross domestic product, but with a compounded annual growth rate (CAGR) of 9.03% (based on constant 2010 USD) for the period 2000-2019 compared to the world average of 2.84% and the US's

1.97% the gap is closing rapidly (World Bank, 2020). China benefited and still profits from the ongoing globalization of industrial production, which encompasses the optimization of manufacturing processes by outsourcing labor-intensive tasks to countries with cheap labor (Huang, 2013). While geopolitical developments and trade wars reduced cross-border investments into China in recent years, it did not reverse the trend (IMF, 2020; OECD, 2020; UN, 2019).

Decentralized and off-shore production structures depend on access to efficient supply chains. Airlift capacity constitutes an essential part of the transport infrastructure, ensuring the supply of intermediate products needed to feed the assembly lines, the timely delivery of crucial machinery or parts thereof, and the swift delivery of final products to consumers abroad (Sales et al., 2013). The strong market potential attracted non-Chinese airlines who control more than 75% of international freight traffic from China, as data from the Civil Aviation Administration of China (CAAC) reveals (CAAC, 2017). In comparison, Singaporean and Korean airlines hold around 60% of their air cargo home market (Tian, 2013). Recognizing the importance of airfreight to the Chinese economy, the government advanced policies actively encouraging the establishment of cargo carriers, particularly in the form of international joint ventures (IJV) to facilitate efficiency gains through knowledge transfer (CAAC, 2016). Several well-known legacy carriers such as Lufthansa, Singapore Airlines, or Korean Air seized the opportunity and established cargo airlines in cooperation with Chinese partners, but none achieved economic sustainability.

Hooker (2012) finds that collaborative business activities are shaped by deeply-held cultural attitudes. Reports describing the relationship between Chinese and their foreign partners as being burdened by intercultural differences are not limited to aviation (e.g., Dong and Liu, 2010; Gift et al., 2013; Harzing and Pudelko, 2016; Hennart and Zeng, 2002; Ma, 2010; Makino and Neupert, 2000; Wang and Giouvriss, 2020). Cramer (2018) observed that cross-cultural problems cause more than twice as many failures of international mergers and acquisitions involving Chinese enterprises than technical, financial, and strategic issues. The presented study aims to inquire about the implications of the diverging cultural backgrounds of the stakeholders in governing foreign-invested cargo airlines in China and to establish if differences between the ethnic groups contributed to the untimely demise of the IJC companies.

LITERATURE REVIEW

Sino-foreign Cargo Airlines

Academics and economists widely agree on the strong correlation between the quality and efficiency of the logistics sector and economic growth, supporting the fact by studies employing different models and theoretical frameworks (e.g., Banerjee et al., 2020; Button and Yuan, 2013; Hakim and Merkert, 2016; Hayaloglu, 2015; Xie and Luo, 2015). In recognition of the transport sector's impact, governments

implemented various regulatory policies to stimulate economic growth. For example, when the European Union was formed in the 1990s, one of the first topics addressed was a common transport policy (European Parliament, 2020). Similarly, the Chinese government introduced the Belt and Road initiative in September 2013, promoting large-scale investments into transport infrastructure to further regional economic prosperity in the participating nations (Wang et al., 2020).

The volume of the goods transported by air is less than one per cent of total cargoes hauled; however, the monetary value of these consignments amounts to 34.6% of global trade. (ATAG, 2016). The importance of capable air links is comparatively higher to China's emerging market economy as its domestic consumer market, despite strong growth, is underdeveloped compared to Western industrialized countries. Over the last decade, the airfreight market in China - measured in freight tonne-kilometres (FTK) – consistently outgrew the global market with a CAGR of 8.64% compared to the global average of 2.58% (CAAC, 2020; World Bank, 2020). Industry experts widely agreed in their prognosis that China would be home to the world's largest aviation market by mid-2020 (Airbus, 2019; Boeing, 2018; IATA, 2018). The global COVID-19 pandemic hastened the rise, and on 13th April 2020, China was officially ranked as number one (CAPA, 2020). Despite these achievements, academic studies by Chinese researchers conclude that the noteworthy efficiency improvements in commercial passenger airlines are not met with comparable advances in the airfreight business. The booming passenger business is often more lucrative, and the higher public perceptibility is used by Chinese carriers to satisfy political objectives leaving little capacity to build knowledge in the cargo sector (Shao and Sun, 2016; Wang et al., 2014; Zhang and Round, 2008). As a consequence, China liberally grants traffic rights to foreign freight airlines, but these rights can be revoked or curbed with minimal notice (CAAC, 2017). The possibility to participate in China's thriving aviation market beyond the limited scope available through bilateral traffic rights agreements is an attractive proposition for non-Chinese airlines. Cross-border alliances and IJVs allow global air carriers to expand their scope and scale, optimize their networks, realize economies of density, and enhance operating efficiencies (Bilotkach and Hüscherlath, 2019; Min and Joo, 2016; Tu et al., 2020; Ustaömer et al., 2015).

Whereas Chinese and non-Chinese investors have plausible incentives to collaborate, the success and lifespan of past IJVs were limited. For example, Lufthansa's joint venture with Shenzhen Airlines christened 'Jade Cargo International' failed in 2012 after fewer than six years of operation. Singapore Airlines' involvement in Great Walls Airlines lasted only five years before it was merged into China Cargo Airlines along with Shanghai Airlines Cargo, a joint venture involving Taiwan's EVA Air leading to a drastic reduction in foreign influence. Foreign involvement in China Cargo Airlines did not last either and ended after just three years. Grandstar Cargo International Airlines was founded as a joint venture involving Korean Air Cargo in 2008 and ceased operation in 2012. The engagement of

Taiwan's China Airlines in Yangtze River Express endured seven years. Cathay Pacific's involvement in Air China Cargo since 2011 constitutes the only IJV still in effect, but it can be questioned if it qualifies as a cross-border joint venture with Hong Kong being a special administrative area of China. Furthermore, the equity linkage between Air China, which holds 29.99% of Cathay Pacific's shares and Cathay Pacific, which controls 57.72% of Air China's shares, suggest a project within an airline group rather than a cross-border joint venture (Neuhuber, 2018). The failure of IJVs in the air cargo industry raises the question if joint ventures are a suitable form of implementing international strategic alliances (ISA).

IJV are the closest structure of an ISA. Offering distinctive qualities, they contributed significantly to the economic integration of formerly isolated economies such as Russia, Eastern Europe, and China (Nippa and Reuer, 2019). Competitive advantages and mitigation of organizational uncertainties concerning external resources through knowledge and technology sharing, the realization of economies of scale or scope, and financial and operational risk-sharing are frequently cited benefits of IJV (Goodman, 2013; Gulati et al., 2009; Lowen and Pope, 2008). However, inherent risks are built into any joint venture structure (Geringer and Herbert, 1989). Diverging expectations and strategic aims on the part of the shareholders, unpreparedness for the political, institutional, and economic conditions encountered (Meschi and Wassmer, 2013), dependence and power asymmetries (Child, 2002; Fang and Zou, 2010), different time horizons of the partners (Luo, 2007), inconsistent management styles, language barriers, and differences in organizational and national culture (Fang and Zou, 2010; Lu et al., 2020) render IJV arrangements frequently instable. Lowen and Pope (2008) and Cramer (2018) report that as many as 70% of joint ventures fail.

Culture in the International Business Context

Trade between peoples goes back millennia, but the proliferation of capitalism combined with advances in industrial production, transportation, and communication technologies in the 19th century (Yazdani and Menon, 2020) transformed the business world through what is commonly referred to as 'globalization' (Axford, 2013). The rise in multinational interactions triggered significant attention among academics, and a myriad of ensuing definitions of culture followed. The presented study resides in the business and management domain and, guided by the research objectives as well as practical considerations in regards to the needs of thematic analysis, adopts the following parsimonious definition for culture:

Culture consists of latent patterns of underlying normative values of a social group, which are instigated by social conditioning, are enduring, and distinguish a group from outsiders.

This definition draws on Kroeber and Kluckhohn (1952, p. 181), who describes culture as "patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the

distinctive achievement of human groups [...]”, Hofstede (1980; 2001, p. 9) who treats "culture as the collective programming of the mind which distinguishes the members of one human group from another", and Schwartz (2014) who views "societal culture as the latent, normative value system, external to the individual, which underlies and justifies the functioning of societal institutions" and falls into the category of national culture.

The pertinent literature lists several noteworthy conceptional models for national culture; Hofstede offers a simple model to characterize cultural qualities comprising six dimensions (Hofstede, 1980; 2001; Hofstede et al., 2010; Minkov and Hofstede, 2012; The Chinese Culture Connection 1987; 2016). It became the most influential and most cited body of theory on culture (Green, 2016; Nakata, 2009) and is an enduring subject of academic discourses (e.g., Beugelsdijk et al., 2017; Jackson, 2020; Zhou and Kwon, 2020). The lists of critics, research foci, and alternative concepts are long, and preferences for frameworks vary between academic fields (Beugelsdijk and Welzel, 2018). For example, Schwartz (2014) stresses that individual value ratings vary more between individuals than countries, invalidating average scores, an observation which led to the concepts of inter-country cultural diversity (e.g., Dheer et al., 2015; Gong et al., 2010; Xu et al., 2019) and supra-national cultural clusters (e.g. Ronen and Shenkar, 2013). Inglehart explores cultural changes over time, questioning the concept of culture being constant (Inglehart, 2014; Inglehart and Baker, 2000). Kirkman et al. reviewed 180 articles of Hofstede-inspired research and judge that the field is fragmented and an inappropriate mixture of cultural and organizational values undermines the findings (Kirkman et al., 2006; Kirkman et al., 2017). Yamen et al. (2021) establish a relationship between culture and institutional quality and Nakata (2009) questions if a concept devised in the 1970s is still valid in a business world molded by the internet and a global workforce. However, none of the alternative conceptual frameworks that emerged, such as the Globe index (House et al., 2002), Schwartz's (1994) seven dimensions, or Inglehart's dynamic theory of cultural change (c.f. Inglehart, 2008; 2014; Inglehart and Baker, 2000; Swoboda and Batton, 2019), is necessarily considered superior in the literature (c.f., Beugelsdijk and Welzel, 2018; Drogendijk and Slangen, 2005). Research into the effects of intercultural differences on the performance of IJVs resulted in diverging findings. Implementing an accelerated event-time model and maximum likelihood techniques, Park and Ungson (1997) conclude that cultural distance is not a statistically significant indicator for a higher dissolution rate. Lowen and Pope (2008) arrive at a similar result using a Cox proportional hazard model. This contrasts the findings of Hennart and Zeng (2002), who compare the longevity of Japanese-American IJVs with domestic Japanese joint ventures. Cui et al. (2019) employ multiple regression analysis to show that national culture differences have significant adverse effects on information exchange and problem-solving. Barkema and Vermeulen (1997) use Hofstede's framework to investigate how the joint venture partners' different cultural backgrounds affect the survival of IJVs.

They argue that the disruptive potential varies between the dimensions of national culture (Hofstede, 1980; 2001), with misalignments in 'uncertainty avoidance' and 'long-term orientation' being particularly precarious. Similarly, Wang and Giouvris (2020) find evidence that cultural distance has a significant negative effect on the survival of IJV in China using separate cultural distance scores based on Hofstede (1980; 2001) and GLOBE (House et al., 2002). Beauchamp and Kleiner (1995) and Makino and Neupert (2000) conclude that understanding foreign culture and its impact on business practices is a crucial component of success. Harzing and Pudelko (2016) establish the importance of the cultural context of the home and host country and warn against oversimplifications through the use of cultural distance scores. This corresponds with Lopez-Duarte and Vidal-Suarez (2013), who analyze different approaches to measure cultural distance and conclude that cultural distance measures should be complemented by other dimensions, such as language and political risks. Samiee (2013) reports that firms incorporate a large number of measures to assess and reduce risks associated with cross-border investments, with cultural factors being just one of them. Not all papers distinguish transparently between national and organizational culture. Pothukuchi et al. (2002) claim that the latter is more strongly associated with negative effects of partner dissimilarity than national culture. However, national culture inevitably influences organizational culture, although not exclusively (Knein et al., 2020).

The presented study acknowledges that cultural zones might be more regional than country-specific (c.f. Beugelsdijk et al., 2017; Ronen and Shenkar, 2013; Schwartz, 2014), but the distance between the Western and Chinese research participants is sufficient to treat the two social groups as homogenous and allow meaningful delimitations. The qualitative nature of the research refrains from quantifying the impact cultural differences had on the economic performance of sino-foreign airlines (c.f. McSweeney 2002; 2016) but aims to answer the question if cultural tensions contributed to the failure of joint venture airlines. The lifespan of the airlines was thereby short enough to treat culture as being immutable (c.f. Inglehart, 2014; Inglehart and Baker, 2000).

DATA AND METHODOLOGY

The data for this secondary research study consists of interview transcripts compiled by the author when researching the economics of cross-border joint venture all-cargo airlines in China (Neuhuber, 2018). Whereas cross-cultural issues were not at the center of the enquiries, the theme surfaced repeatedly, prompting a re-examination of the data from an intercultural perspective. The fact that the accounts were collected with a different research focus precludes potential biases.

The research participants were selected by purposeful sampling and consist of senior industry representatives, specifically two Western Chief Executive Officers (CEO) and a Vice President Sales of

joint venture cargo airlines in China, the CEO of a European cargo carrier with Chinese shareholders, a former deputy director of the CAAC, who was also responsible for certification and oversight of IJV cargo airlines, and the CEO of a Hong Kong-based freight forwarder who catered to the air transport needs of Chinese shippers and worked with Western airlines as well as Chinese joint venture airlines. The interviews followed a semi-structured design. All discussions with research participants were conducted by the author in face-to-face meetings, with each of the interviews taking between 90 and 150 minutes.

Responding to Brannen and Salk's (2000) call for IJV research to focus on rich narratives rather than structural research conducted at a macro level, the accounts of the research participants' statements are examined employing Template Analysis, a form of thematic analysis with its root in organizational research (Brooks et al., 2015). Template Analysis combines philosophical flexibility with structural rigor. In contrast to Grounded Theory, Interpretative Phenomenological Analysis, or Braun and Clarke's (2006) version of thematic analysis, is Template Analysis not committed to specific philosophical assumptions (Brooks et al., 2015; Clarke and Braun, 2018), allowing its integration with the critical realist paradigm without violating underlying assumptions. Template Analysis is a method to analyze qualitative data by thematically organizing and summarizing themes identified in a data set. Themes are recurrent features in the participants' accounts describing perceptions or experiences relevant to the research question (Brooks and King, 2014). Generation of the templates, sometimes in the literature also referred to as "codebooks" (e.g. Roberts et al., 2019), encompasses a rigorous, iterative coding process, which is more concerned with the depth of the analysis than, for example, Framework Analysis (Terry et al., 2017).

FINDINGS

Three level one (L1) themes were a-priori defined based on the research objective. Contrary to the approach commonly applied in thematic analysis, whereas the themes for the templates are initially identified based on a subset of the data (Brooks and King, 2014), the entire source data was used in each iteration. This was facilitated by the data set's size encompassing 51 written pages and resulted in 19 level two (L2) themes used for preliminary coding. The review and clustering processes that followed each coding round allowed to consolidate the original set to the eight themes comprising the final template. The structured process and the detailed definition of themes ensure the objectivity and transparency of the analysis process.

L1 Themes	L2 Themes	Observations					
		Absolut			% of Interviewees		
		CN	NCN	Total	CN	NCN	Total

The value of IJV airlines in the air cargo industry. (T1)	T1-1	IVJ are an efficient way for NCN airlines to enter China's high growth market and for CN operators to introduce superior operating procedures	4	10	14	100	100	100
	T1-2	The airfreight industry is not sufficiently understood by Chinese airlines managers.	7	5	12	100	100	100
Reasons preventing success. (T2)	T2-3	Political influence beyond that expected by foreign airline managers. Unexpected changes of the political and legal environment.	11	24	36	100	100	100
	T2-4	Formal meetings are just to show harmony, the real decisions are taken during informal gatherings.	3	3	6	50	50	50
	T2-5	Intercultural tensions and mistrust. Exclusion of members of the other group from the decision making process.	4	11	15	50	75	67
	T2-6	Diverging, often opaque or even hidden aims of the stakeholders. Feeling of victimization by one partner.	7	7	14	100	75	83
	T2-7	Language barrier.	2	3	5	50	50	50
Is culture to blame for the demise of IJV airlines? (T3)	T3-8	Intercultural issues are seen as the or one of the main threats to collaborating successfully.	15	7	22	100	100	100

Table 1. Template Analysis - Results

The hierarchical coding process incorporates only two levels of themes to allow meaningful interpretations, avoid biases, and guarantee that transparency is not limited to the research process but also encompasses the analysis. Table 2 summarizes the themes used as part of the coding template, and the absolute and relative number each was observed in the transcripts.

The findings are considered plausible, and the Chinese (CN) and non-Chinese (NCN) research participants broadly concur in their assessments. The honesty with which the questions were answered is exemplified by theme two (T1-2), with senior Chinese managers being significantly more critical

about the performance of their countrymen than the non-Chinese interviewees. The findings are considered relevant and consistent with the findings of other researchers, as elucidated in the next chapter.

DISCUSSION

All senior managers participating in the research project classified risks stemming from intercultural tensions as the main reasons why such arrangements fail (T3). This is remarkable as the interview questions were not aimed at cultural differences but the economics of an IJV airline. As references to cultural differences were introduced by the interviewees, biases caused by leading questions can be ruled out. A Western CEO who led an international airline in China for several years states, for example: “The importance of political and cultural management cannot be overstressed”. This is confirmed by a high ranking Chinese official who formulates: “Any manager must understand the Chinese way of doing things to be successful [in China...]. The [foreign] management teams have to tolerate some of the things they believe to be imperfect; it took 5,000 years to make China into what it is today.” Although senior air cargo managers’ identification of cultural differences as a significant risk to the survival of IJVs aligns with observations by Fang and Zou (2010), Lu et al. (2020), or Wang and Giouvris (2020), it cannot be determined if this awareness was there from the beginning or developed over the lifespan of the IJV airline. Considering that cross-cultural risks are not an isolated phenomenon nor limited to international collaborations involving Chinese (e.g., Brannen and Salk, 2000), a combination of prior awareness and experience is conceivable.

Political influence in business matters and unexpected changes in the political and legal business environment (T2-3) was the theme identified most often and was cited by all interviewees. China is not a free market economy but a communist country with five-year plans, which owes its economic rise to the changes initiated by Deng Xiaoping’s “Reform and Opening Up” plan of 1978 (Lampton, 2014). Zhang (2018) compares the conclusions of a 2007 Delphi study predicting the international business environment in China in 2017 with the actual observations and reports that one-third of the predictions were far off the mark. The effects of the financial crisis in 2008 and, most importantly, Xi Jinping’s appointment as President of China in 2013 are identified as the main reasons for the discrepancies. Zhang (2018) concludes that both events have a material impact on the economic environment in China. Political influence is not limited to high-level policies, such as Xi’s ‘Belt-Road Initiative’ (Zhao, 2020), but rather is an integral part of the Chinese business structure, as observations by the research participants confirm. One of the Chinese managers formulated: “For potential new airlines, that means: respect the signals from the government. [...] If it means operating routes that are not profitable, the

government will support the airline and not forget that it backed its policy." or as his countryman conflated, "politics and political influence [are] omnipresent in China."

In line with Meschi and Wassmer's (2013) findings, who identified insufficient preparedness of foreign managers as a factor burdening IJVs, Western managers in China's cargo airlines were frequently surprised by the speed with which changes took place. A former airline CEO put on record: "As the legal environment in China changed during the initial preparation phase, the plan became unfeasible." The Deputy Director of the CAAC confirms the point by linking the problems IJVs faced to the inadequate knowledge of foreign managers about Chinese culture and norms, such as their unawareness about the decision-making process in China. "It is vital to have good connections [into political circles] to know about new policies early and prepare accordingly. The joint venture airlines of the past did not communicate enough with the government or authorities as their focus was just on the business side. Consequently, they received important information late, which left them no or very little time to prepare for policy changes." Westerners not privy to such information characterize interactions with Chinese authorities as "painstaking and difficult for foreign managers". "It cannot be ruled out that the CAAC is used as an instrument of power to advance political goals." "Insufficient knowledge about political aims and the limited ability to get access to decision-making circles as a foreigner [...] makes managing an airline in China a very challenging task."

Chinese and Western management practices differ significantly (Lu et al., 2020). Official meetings and formal requests are reported to be merely an opportunity to show harmony and not to find solutions to pressing problems (T2-4). As narrated by Chinese and non-Chinese managers, meaningful negotiations at all levels are only conducted in informal gatherings, such as during dinners. This informality allows deviations from invitation lists and is applied deliberately and tactically (T2-5) as a former airline executive highlights: "if something is not running smooth and needs correcting, Westerners are not invited to the table." The reasons could be manifold, ranging from language barriers (T2-7) to mutual distrust; "There is also an inherent mistrust towards non-Chinese managers", "We had two, maybe three loyal Chinese." versus "they followed instruction from hundreds of miles away which may not have been correct for the outfit in China." "Even if they failed the company, they still had a position in their mother airline. Their fate did not depend [on] and therefore not bond them enough to the joint venture company and their employees." are a few examples of the rift along ethnic lines, which even caused feelings of victimization (T2-6), particularly on the side of the Chinese: "Foreign investors tried to invest as little as possible and get their money back as quickly as possible by charging the joint venture company for various services. In the end, only the Chinese partners lost." The findings corroborate Cui et al.'s (2019) conclusion that national cultural differences negatively affects

information exchange and problem-solving and align with Grimscheid and Brockmann's (2010) findings of trust being a vital success factor in IJVs.

Whereas the Chinese seemed to have a basic concept of the aims of the Western associates, the non-Chinese investors were often at best guessing about the real agenda of their Chinese partners on a macro and micro level (T2-6), as the narrative of a Western airline manager exemplifies: “the purpose of Chinese airlines is not necessarily focused on profit maximization. There are secondary, sometimes opaque, aims that are more important to the Chinese shareholders, such as developing or supporting a certain area, industry, airport, or even interest group.” These observations are consistent with Knein et al. (2020), who emphasize the influence of national culture on organizational culture.

Notwithstanding these diverging views, the research participants largely agree that IJVs offer unique advantages (T1). They are regarded as the quickest and most efficient way to enter the fast-growing Chinese aviation market and access priced Chinese traffic rights. The lean and efficient operating procedures and the technologies introduced by the non-Chinese aviation experts are valued as superior (T1-1) by Chinese partners and customers.

Surprisingly, despite all the reservations about foreigners, the Chinese interviewees hold locally controlled airlines in low regard. A Chinese participant stated: “The network of Chinese carriers is not good.” “Chinese airlines do not care about customers. Managers in SOEs [State Owned Entities] do not care if they make money or not or if their service is good or not as there is no personal gain.” This corresponds with observations by Lei et al. (2016), who analyzed the effects of liberalizations in the China-US air transport market and is affirmed by Western managers: “They rather compete on price [than on service quality]. For large forwarders that is not attractive enough, and Chinese airlines are rather given the overflow instead of a significant share of the main tranche itself.”

Asked about the potential of the IJV model for future endeavors, Chinese and non-Chinese interviewees align in their cautiousness. Whereas Western participants stress that a way must be found to bridge the cultural gap before a new attempt should be made – implying directly or indirectly that there must be developments on the Chinese side – Chinese officials and managers emphasize that renewed collaborations have to ensure mutual benefits and most of all, equal risk distribution.

CONCLUSIONS

The presented research provides strong evidence that the diverging cultural background of the stakeholders engaged in sino-foreign joint venture cargo airlines had a material impact on the survival time of the air carriers. The clear demarcation of attitudes along ethnic lines contradicts Park and Ungson (1997) and Lowen and Pope (2008), who conclude that cultural distance is no significant indicator for high dissolution rates and supports the findings of Lu et al. (2020) or Wand and Giouvriss

(2020), who established a significant negative correlation between cultural distance and survivability. However, to conclude that culture is exclusively to blame for their demise would be an inappropriate oversimplification. There is a possibility that parent companies deliberately sacrificed the IJVs to reduce capacity in a stressed market, and conflicts of interest are an inherent part of any joint venture (Fang and Zou, 2010; Meschi and Wassmer, 2013). The actors failed to proactively establish adequate rules and processes to handle inevitable conflicts and leverage a culturally diverse team's strengths. The latter can only be overcome if all parties benefit from collaborating. Whereas it is undoubtedly challenging to achieve such a symbiotic setup, it is indispensable in times of crisis. Consequently, the question if "culture is to blame for sino-foreign cargo airline failures" must be answered with yes - but not exclusively with external factors, such as the global financial crisis unfolding from 2008 acting as a catalyst.

IMPLICATIONS

The findings of this study substantiate the following recommendations for mitigating intercultural risks and improving the prospects of future endeavors:

- Cultural competence is a crucial aspect for foreign managers (Calza et al., 2013). Westerners assigned to Chinese entities require a profound knowledge of the host country's business environment. When composing the management team, the entanglements between business and politics should be considered, including the need for personal communication channels with officials at different levels. These contacts can be most efficiently fostered by local members of the management team, provided they are loyal to the IJV company and have adequate occupational skills and competencies.
- A symbiotic interdependence where both partners, unlike in competition, work together to achieve mutually beneficial goals is vital. The existence of diverging aims is normal, must be acknowledged, and should be explicitly listed in measurable terms to allow early corrective steps, if needed. Shareholder benefits can be in monetary or non-monetary form but have to be balanced.
- As aims and priorities change over time, a tailored communication strategy is needed (c.f. Zhang et al. 2020). In China, frequent personal and informal meetings are more effective than formal ones.
- In-group/out-group biases are expected (Ma, 2010, Triandis et al., 2001), but group formations along ethnic lines must be avoided. Instead, the team members must identify themselves with the IJV enterprise and refrain from making compromises that favor one shareholder at the cost of the IJV airline or another investor. The implementation of team-building strategies should be complemented by transparent contingency procedures for individuals who cannot be brought on board.

- The sino-foreign company should develop its own company culture based on a framework negotiated between its managers and staff. It cannot be the same as either of the shareholder's (c.f. Brannen and Salk, 2000).
- In the highly cyclic aviation industry, crisis management is essential to survival. Contingency plans shall be formulated to ensure that a single shareholder's inactivity will not endanger the survival of the IJV.
- The management team should include individuals with prior experience in the other culture. These team members can act as mediators, facilitate learning about non-verbal communications and underlying assumptions through formal and informal training (Parkhe, 1991). The process of training and knowledge transfer has the added advantage of building trust between the actors, which is an essential ingredient for the success of IJVs (Grimscheid and Brockmann, 2010).
- Differences in national cultures shall be actively embraced as a competitive advantage. Li et al. (2001) find that national culture differences, in contrast to organizational culture differences, affect performance positively and can constitute a competitive advantage that is rare, difficult to copy and irreplaceable (Teece, 1986).

Based on a content analysis of 1141 articles, Stahl and Tung (2009, p. 391) report a "pervasive tendency" to emphasize adverse consequences of cultural differences. Future studies dedicated to the unique opportunities emerging through cross-cultural collaborations may provide particularly valuable insights.

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FACTORS INFLUENCING STUDENTS' SATISFACTION LEVELS IN DISTANCE LEARNING CONDITIONS

Nicolaidou, Myrto¹; Fotiadis, Thomas²; Folinas, Dimitris³; Vasileiou, Konstantinos⁴

¹Faculty of Economics & Management, Open University of Cyprus, Nicosia, Cyprus

²Department of Production Engineering and Management, Democritus University of Thrace, Xanthi, Greece

³Department of Supply Chain Management, International Hellenic University, Katerini, Greece

⁴Department of Pharmacy, University of Patras, Patra, Greece

ABSTRACT

The purpose of this research is to investigate and identify the factors that have influenced students' satisfaction levels under distance learning conditions, when emergency situations imposed a quick move away from classroom learning in a very short period of time. The results of the study were derived from primary research using a questionnaire which was completed by a sample of 128 students at the end of 2020. The questionnaire included questions related to their socio-demographic data and 32 statements which were grouped into 4 variables: "Instructor Performance", "Course Evaluation", "Student-Instructor Interaction" and "Perceived Student Satisfaction". The results showed that the majority of students had high satisfaction levels for student-instructor interaction, instructor performance and course evaluation. Regression analysis highlighted instructor performance as the most significant variable in students' satisfaction levels, followed by student-instructor interaction and course evaluation. Instructors' training in the new methods required for distance learning is emerging as a requirement in the immediate future, an initiative that is expected to improve the quality of the distance learning that is being provided.

Keywords: Distance learning, satisfaction, quality, instructors, students, University.

INTRODUCTION

In recent times, distance learning has become one of the top discussion subjects in the education sector, particularly influenced by the "open" movement, which includes MOOCs (Massive Open Online Courses (Simonson et al., 2015). A number of definitions have been given for distance learning and what it involves. Some of those initially referred to distance learning models that were based on printed material and correspondence study courses (Keegan 1980; 1990; Holmberg, 1989). Due to the rapid technological developments which have reshaped the nature of educational/teaching material, together with student-instructor interaction (Saykili, 2018), these definitions have been revised. Saykili (2018)

proposed a new one: «Distance education is a form of education which brings together the physically-distant learner(s) and the facilitator(s) of the learning activity around planned and structured learning experiences via various two or multi-way mediated media channels that allow interactions between/among learners, facilitators as well as between learners and educational resources».

The demand for distance learning courses in Tertiary Education tends to be rising, due to various factors, such as: (1) rapid technological advances that widen cognitive horizons in comparison with traditional education; (2) an ever-increasing number of people that have access to the internet; (3) pressure from interested parties and other education agents; (4) other perspectives concerning student-instructor interaction; and (5) students' personalization of their education concerning the timing and quality of their studies, depending on their interests (Arbaugh, 2000; Wagner et al., 2008; Khan, 2005, Ellis et al., 2008).

Despite the great demand for it, distance learning also has some significant disadvantages: (1) it requires a lot of preparation time for both instructors and students, especially when there is no relevant experience; (2) it requires certain skills in relation to the use of new technologies, which are often deterrent factors for older people; (3) it is not as effective in certain scientific fields where practical laboratory work is required (eg physics, chemistry); (4) the lack of human contact makes interaction between students, as well as between instructors and students, more difficult; and (5) public opinion regards distance learning as being of a lower standard, and/or less effective, compared with traditional classroom learning (Arkorful and Abaidoo, 2015; Hameed et al. 2008; Arbaugh, 2000; Ali and Ahmad, 2011). Previous research concluded that the efficiency of lectures conducted by distance learning is influenced by certain factors such as the instructor's familiarity with the necessary teaching software, the ability to be flexible with students' schedules, and the emphasis on interaction among students (Arbaugh, 2000; Ali & Ahmad 2011; Rizwan & Iftikhar, 2019).

Greek universities offer complete (full-time) classroom-taught undergraduate study programs, while postgraduate programs allow courses to be taught via distance learning to some extent, not surpassing 35% of the whole course (Art. 30, N. 4485/2017). Despite this, traditional lectures in amphitheaters and laboratory exercises are often completed with asynchronous e-lessons (eg e-classes, emails); thus, for most courses, a form of blended learning is actually available (Singh, 2003). Due to COVID19, universities were forced to conduct almost all their courses using distance learning methods from March 2020. The transition to almost exclusive online distance learning was completed in a very short time, about 1-3 weeks; both students and instructors faced many challenges towards this end.

The purpose of this paper is to investigate and identify the factors that affect students' satisfaction with distance learning situations when emergency conditions require a transition from classroom to distance

learning in a very short period of time. A literature review is presented regarding the dependent variables of students' satisfaction with distance learning, followed by the methodology and the results of the research. The article concludes with a survey discussion, conclusions, recommendations and limitations.

LITERATURE REVIEW

Arbaugh (2000) hypothesised that the dependent variables in students' satisfaction with distance learning are related to: (a) the utility factor of new technologies; (b) their ease of use; (c) the flexibility they offer; (d) enhancement of the interaction by the instructors; and (e) deep familiarization of young people with new technologies. The research was conducted among students attending 5 different courses: 4 had a combination of both live and distance learning and only 1 was entirely online; however, it did not verify all of Arbaugh's hypotheses. Enriching previous research, Ali and Ahmad (2011) summarized Arbaugh's original hypotheses into three. Specifically, they considered that students' satisfaction depends on and is positively affected by: (a) the instructor's performance, (b) the student's interaction with the instructors, and (c) the evaluation of the distance learning course. Their hypotheses were confirmed by the results of their research on 245 students studying at the Allama Iqbal Open University, Pakistan, as well as from the research of Rizwan and Iftikhar (2019) which used a sample of 251 students from the virtual campus of COMSATS University. Redmond et al. (2018) developed an online engagement framework for higher education, comprised of 5 elements of engagement: social, cognitive, behavioral, collaborative and emotional. Cercone (2008) and Gravani (2015) also addressed the adult learning environment and the way distance learning is conducted within it.

Instructor performance

It is not enough for the instructor conducting the distance learning course to have the required academic knowledge regarding his/her subject field (Rizwan & Iftikhar, 2019). It is also necessary to have knowledge about new technologies, so that the instructor can manage the knowledge that is uploaded onto the internet, with the ability to adjust tasks and evaluations within the sphere of this kind of education (Boling et al., 2012). Instructors must be supportive towards their students, because they are not a homogeneous group as a whole, and they must be able to understand the difficulties their students face due to their family and/or professional circumstances. The instructor must be ready to listen to and learn from his/her students, in order to develop the topic and make the course material more interesting for them. Honesty and respect towards each and every student are also very

important (Cercone, 2008). In general, the instructor of a course taught in a virtual classroom must have the whole range of skills that are required for distance learning (Arbaugh, 2000).

Student-instructor interaction

From the literature, it appears that student-teacher interaction is a very basic condition for students' satisfaction in distance learning. According to many studies, the overall effectiveness and success of online education depends on interaction, which is essential in making good learning conditions for students (Ali & Ahmad 2011; Arbaugh, 2000; Boling et al., 2012; Rizwan & Iftikhar, 2019). According to the findings of Boling et al. (2012), concerning online courses that offered little to no interaction, students felt disconnected, less satisfied, frustrated with the content, their teachers and fellow students, and did not find the material to be very useful. Whenever this interaction was interrupted due to technical problems (eg the internet failed to connect), the students felt disappointed. In an online learning environment, a teacher needs more time to interact directly with each individual student, so that most students are able to successfully attend a predetermined and well-developed e-learning course. Teachers are not mere carriers of information, but mentors and "learning coordinators and managers". It is therefore useful for teachers to stay in touch with their students through discussions, e-mail and online forums (Boling et al., 2012).

Course evaluation

Students show preference for innovative courses, those which include interaction, research and case studies, and they desire to take part in discussions and exchanges of opinions (Rizwan & Iftikhar, 2019). They evaluate distance learning courses based on their structure, the organization of their material, the explanations given by the teacher in order to make the learning process more comprehensible, as well as the availability of the teacher when their help is needed (Ali & Ahmad 2011). Students realize that discussions which take place during distance learning are fairer and more democratic than live classroom discussions. They also get frustrated when courses are taught 'informally', or they are not given enough time for their concerns and queries to be answered. Therefore, in the online learning environment, receiving feedback from students about their needs and preferences is vital to the successful design and implementation of this kind of environment (Arbaugh, 2000).

Means to enhance student satisfaction in distance learning

Madland and Richards (2016) propose, inter alia, collaborative learning and planning for a deeper understanding of courses, as some of the ways in which student satisfaction can be enhanced in distance learning. Collaborative learning is the structure of activities in the teaching context which promote the collaboration of groups of students to complete specific defined goals in the activities offered in the courses (Johnson & Johnson, 1999; Slavin, 1980). Vygotsky (1978) argues that students'

collaboration works beneficially in developing their skills, because it creates opportunities for new challenges among them. This method of learning also has benefits in the preservation of knowledge as it promotes cognitive processing, through which students have the opportunity to re-visit and re-process previously acquired knowledge (Madland and Richards, 2016).

Garrison & Cleveland (2005) reported that proper lesson planning and teacher attendance are two important factors to consider when students' deeper understanding of the lesson is desired. Lecture planning should be subject to certain rules in order for lectures to be effective. Horton (2012) states that the duration of a lecture should not exceed 90 minutes, because participants lose their concentration after that, but it should also not be less than one hour. He adds that it is particularly useful to inform participants about how to 'enter' the lecture (ie attend it online), and its goals. A study by Garrison & Cleveland (2005) also highlights that, in order for this to be possible, attention must be paid to creating quality interactions between students and teachers. Thus, in combination with the necessary technological infrastructure, a natural and psychologically appropriate climate must be created, which enhances the effectiveness of the lesson, and therefore student's satisfaction (Knowles, 1980).

From the results of the above research, it is obvious that the efficiency of distance lectures is directly influenced by certain factors, such as: the familiarity of teachers with the necessary learning software, the possibility of flexible student schedules, and emphasis on the interaction between students and their instructors, which all favor increased efficiency of distance learning. It is therefore worth noting that when these factors are not met, students seem to find distance learning less attractive and efficient.

RESEARCH DESIGN

Questionnaire survey

The present research was based on the collection of primary data through a questionnaire. It contained 32 statements in which respondents had to record their degree of agreement using 7-point Likert-type scales (from 1 "strongly disagree" to 7 "strongly agree"), grouped in 4 categories. The first consisted of 9 questions concerning instructor performance appraisal, the second with 6 questions aimed at the course evaluation, the third with 5 statements for the assessment of student-instructor interaction, and the last 12 statements measuring perceived student satisfaction by the distance learning process. All the questions had been used for similar purposes in previous surveys. Specifically, of the 32 questions, the first 20 were used by Ali & Ahmad (2011), while 12 were used in a similar study by Arbaugh (2000). The questionnaire also included questions about students' socio-demographic data, such as marital status, other degree studies, residence, gender and age.

Sample of the study

The results of the research were based on a sample of 128 active students of the International Hellenic University who participated in the online data collection process in November and December 2020. The participants took part in courses which were taught exclusively in person prior to the COVID19 outbreak, but all courses were conducted via mandatory online distance learning methods after March 2020. Of the 128 participating students, 85 were men (66.4%) and 43 women (33.6%). The majority (N = 115, 89.8%) were up to 24 years of age, 7 (5.5%) were between 25 and 34 years of age, and the remaining 6 (4.7%) were older than 35. Due to the small frequency in the 25-34 and >35 age categories, these were merged in further analyses into a new category, >25, with a frequency of 13 (10.2%). In terms of marital status, 118 (92.2%) were single, 8 were (6.3%) married and 2 were divorced/separated. Due to the low frequency of the last two categories, these were merged in further analyses into a new category, the "non-single", with a frequency of 10 (7.9%).

Almost all of the respondents (N = 126, 98.4%) were studying in undergraduate programs. About 8 in 10 (N = 105, 82%) lived in an urban area and 23 stated that they lived in a rural area. Four held a postgraduate diploma and 11 were basic degree holders; these two groups were merged in further analyses into a new category: "holder of another basic or postgraduate degree", with a frequency of 15 (11.7%). In terms of income, 4 in 10 (N = 52, 40.6%) stated that they have an annual income of less than 10,000 euros, 26 (26.3%) earned 10,000-25,000 euros, and 13 (10.2%) earned more than 25,000 euros; the remaining 37 (28.9%) did not answer this question.

Data analysis

For the analysis and description of the qualitative variables, the frequency and percentage of the different answers for each of the questions were calculated, while for the continuous measurements, the mean value and the standard deviation of the values were calculated. Confirmatory factor analysis was applied to confirm the structure of the questionnaire. The analysis of variance method was used to examine the influence of socio-demographic data on the values of the scales, while the linear regression method was used to assess the influence of the variables on students' perceived satisfaction levels with distance learning. The statistical analysis was performed with the SPSS program (v.21) while the exploratory and confirmatory analysis was conducted using the statistical programming language R equipped with Lavaan packages (Rosseel Y., 2012).

RESEARCH FINDINGS

Instructor performance

Table 1 reports students' attitudes regarding instructors' performance. The statements that participants mostly agreed on concerned instructors' encouragement to their questions and comments (M = 6.1),

and instructors' knowledge of the subject matter ($M=5.6$). On the contrary, students appeared to be least satisfied by the stimuli received from their instructors ($M=4.6$) and the clarity of the information presented ($M=4.9$). Overall, the participants evaluated instructors' effectiveness to be relatively low ($M=4.8$).

		1	2	3	4	5	6	7	Mean	SD
IP1	Overall the instructors were effective	0	3.9	9.4	29.7	23.4	28.1	5.5	4.8	1.2
IP2	The instructors were available for consultation during office hours or by appointment.	0	2.3	5.5	16.4	20.3	32	23.4	5.4	1.3
IP3	The instructors stimulated students' learning.	1.6	4.7	13.3	28.1	25	18.8	8.6	4.6	1.4
IP4	The instructors treated all students fairly	1.6	5.5	7.8	13.3	25	25.8	21.1	5.2	1.5
IP5	The instructor treated all students with respect	1.6	2.3	7	11.7	18.8	33.6	25	5.4	1.4
IP6	The instructor welcomed and encouraged questions and comments.	0	0.8	0.8	6.3	17.2	34.4	40.6	6.1	1.0
IP7	The instructor presented the information clearly.	0	2.3	7	25	34.4	21.9	9.4	4.9	1.2
IP8	The instructor emphasized the major points and concepts.	0	2.3	3.9	13.3	30.5	35.2	14.8	5.4	1.1
IP9	The instructor demonstrated knowledge of the subject.	0	0.8	3.9	11.7	19.5	45.3	18.8	5.6	1.1

Table 1. Respondents perceptions concerning instructor performance (Valid %)

Participants' answers to the above statements correlated positively among them (ρ ranged from 0.25 to 0.77). The responses for the 9 statements were positively correlated, indicating that they represent different aspects of the same factor. Confirmatory factor analysis (CFA) attested that these 9 statements constitute a common factor (χ^2/df : 78, NFI: 0,964, CFI: 0,973, GFI: 0,983, AGFI: 0,971, TLI: 0,964, SRMR: 0,079, RMSEA: 0,148). Moreover, the internal reliability of the instructors' performance scale was very good (Cronbach's $\alpha = 0,890$). Next, the instructors' performance (IP) scale was calculated by the mean value of the answers to the 9 statements. The mean value for overall satisfaction was 5.27 (SD = 0.92), indicating that the vast majority of respondents were quite satisfied with the instructors' performance, while it was significantly positively correlated with the individual responses, confirming the ability to represent all the responses (Table 2).

IP1	IP2	IP3	IP4	IP5	IP6	IP7	IP8	IP9
.765**	.530**	.776**	.769**	.752**	.688**	.776**	.735**	.771**

** . Correlation is significant at the 0.01 level (2-tailed)

Table 2. Spearman's correlation between the instructor performance scale and its items

ANOVA analysis was conducted to detect significant differences among student groups according to sociodemographic characteristics such as gender, age category, marital status, residence, another degree and income level. Gender ($p = 0.795$), marital status ($p = 0.946$), residence ($p = 0.827$) and income level ($p = 0.836$) had not a significant impact on student perceptions regarding the instructor performance. However, age category ($p = 0.013$) and holding another degree ($p = 0.008$) influence student attitudes about instructor performance, as participants that already hold a degree and, consequently, are older scored significantly higher than their classmates. Therefore, mature students with higher experience in tertiary education appear to appreciate more their instructors' performance acknowledging the various obstacles they have to overcome to provide the most appropriate educational circumstances to their students.

Course evaluation

Table 3 presents the respondents' answers to the 6 items concerning course evaluation. In general, students seem relatively content with their courses, since the mean values of all the statements ranged from 4.7 to 5.4, which is also reflected by their overall evaluation of the learning experience from their course ($M = 4.8$). Standard deviation (SD) was rather high for most of the statements, reaching up to 1.6; this indicates the disparity among students' evaluations. Students gave a higher rating for the relevance and utility of the course material and assignments ($M = 5.4$ & 5.2), and a lower one for the testing and evaluation procedures ($M = 4.7$). Correlation coefficients for the answers among the statements (ranged between 0.41 and 0.65), CFA results (χ^2 / df : 110.1, NFI: 0.985, CFI: 0.991, GFI: 0.994, AGFI: 0.987, TLI: 0.984, SRMR: 0.055, RMSEA: 0.116) and Cronbach's α (0.857) measure of overall internal consistency altogether indicated that these 6 statements effectively capture the most important aspects of course evaluation.

		1	2	3	4	5	6	7	Mean	SD
CE1	Overall, I had valuable learning experiences from my courses.	1.6	4.7	14.1	17.2	28.9	18.8	14.8	4.8	1.5
CE2	The assignments were relevant and useful.	1.6	3.1	3.1	18	28.1	29.7	16.4	5.2	1.3
CE3	Courses material was relevant and useful	0	2.3	3.9	12.5	32	35.9	13.3	5.4	1.1
CE4	Expectations were clearly stated either verbally or in the syllabus.	0.8	2.3	7	18	32.8	32	7	5.0	1.2
CE5	The testing and evaluation procedures were fair.	3.1	7.8	10.9	21.1	23.4	21.9	11.7	4.7	1.6
CE6	The workload was appropriate for the hours of credit.	2.3	3.9	7	18	25.8	32.8	10.2	5.0	1.4

Table 3. Respondents' views about course evaluation (Valid %)

The mean value of the course evaluation (CE) scale was 5.02 (SD = 1.03), indicating that the vast majority of respondents were generally satisfied with the quality of the courses. This was also significantly positively correlated with the responses to the individual statements, confirming the ability of the CE scale to represent all its components (Table 4).

CE1	CE2	CE3	CE4	CE5	CE6
.807**	.723**	.807**	.819**	.758**	.688**

** . Correlation is significant at the 0.01 level (2-tailed)

Table 4. Spearman's correlation between the course evaluation scale and its items

ANONA analysis revealed that gender ($p = 0.192$), marital status ($p = 0.317$), residence ($p = 0.671$) and income level ($p = 0.803$) were not found to significantly affect the values of the course evaluation scale, which demonstrates the homogeneity of students' responses. On the contrary, age category ($p = 0.007$) and holding another degree ($p = 0.035$) affected significantly participants' scores of course evaluation scale in the same manner as the instructor performance scale.

Student-Instructor Interaction

Students' perceptions about their interaction with their instructors are reported in Table 5. The respondents professed to be rather pleased with their interactions with the instructors during the course discussions ($M=5.3$), and the instructors' encouragement to get them actively involved in the course discussions ($M=5.2$). However, they revealed their disappointment concerning information received periodically about their progress. ($M=2.9$).

		1	2	3	4	5	6	7	Mean	SD
SI1	The instructors encouraged me to become actively involved in the course discussions	0.8	1.6	9.4	18.8	18	33.6	18	5.2	1.4
SI2	The instructors provided me with feedback on my work, through comments	3.1	3.9	11.7	24.2	23.4	25	8.6	4.7	1.4
SI3	I was able to interact with the instructors during the course discussions	1.6	3.1	7	14.1	25.8	25.8	22.7	5.3	1.4
SI4	The instructors treated me individually	12.5	11.7	14.8	22.7	14.8	18.8	4.7	3.9	1.8
SI5	The instructors informed me about my progress periodically	28.9	19.5	17.2	14.1	10.2	8.6	1.6	2.9	1.7

Table 5. Respondents' attitudes concerning student-instructor interaction (Valid %)

The five statements were found to encompass the most relevant issues of student-instructor interaction according to the correlation coefficients of the responses among the statements, ranging between 0.41 and 0.64; CFA results were χ^2/df : 197,7, NFI: 0,972, CFI: 0,975, GFI: 0,991, AGFI: 0,972, TLI: 0,950, SRMR: 0,072, RMSEA: 0,279, and Cronbach's α was 0.857.

The mean value of the students-instructor interaction (SII) scale was 4.40 (SD = 1.21), lower than the average value of the scales of the course's and the instructor's performance, while it was significantly positively correlated with all its components, confirming the ability to effectively represent all of them (Table 6).

SI1	SI2	SI3	SI4	SI5
.737**	.809**	.736**	.818**	.752**

**. Correlation is significant at the 0.01 level (2-tailed)

Table 6. Spearman's correlation between the student-instructor interaction scale and its items

ANOVA analysis revealed that none of the sociodemographic characteristics have a significant impact on the values of the SII scale, which demonstrates the homogeneity of students' responses [gender ($p = 0.681$), age category ($p = 0.149$), marital status ($p = 0.821$), residence ($p = 0.929$), having another degree ($p = 0.094$), income level ($p = 0.334$)].

Perceived Student Satisfaction

Table 7 presents the respondents' answers to the 12 statements concerning perceived student satisfaction. In general, students claimed they were quite satisfied with most of the examined aspects of the course, as the mean values for 5 out of the 9 positive statements ranged from 4.7 to 5.0. Moreover, the mean values of the remaining 3 adverse (negative) statements was around 3.0, further confirming students' general satisfaction. However, students claimed to be almost equally satisfied with the quality

of the online courses when compared to other (face-to-face) courses ($M=4.0$). It is worth noting that the high standard deviation values for most statements indicates the disparity among students' perceptions, namely the existence of discrete student segments. This finding has important practical implications which are discussed below.

		1	2	3	4	5	6	7	Mean	SD
PSS1	I am satisfied with my decision to take this course via the Internet.	6.3	15.6	10.9	21.1	13.3	16.4	16.4	4.3	1.9
PSS2	If I had an opportunity to take another course via the Internet, I would gladly do so.	9.4	11.7	12.5	19.5	13.3	13.3	20.3	4.4	2.0
PSS3	My choice to take this course via the Internet was a wise one.	4.7	3.9	9.4	24.2	15.6	23.4	18.8	4.9	1.6
PSS4	I was very satisfied with this course.	0	5.5	7.8	25.8	22.7	22.7	15.6	5.0	1.4
PSS5	I feel that this course served my needs well.	1.6	5.5	8.6	22.7	23.4	25	13.3	4.9	1.4
PSS6	Conducting the course via the Internet improved the quality of the course compared to other courses.	10.9	15.6	14.8	16.4	16.4	11.7	14.1	4.0	1.9
PSS7	I will take as many courses via the Internet as I can.	7.8	6.3	10.9	16.4	13.3	15.6	29.7	4.9	1.9
PSS8	The quality of the course compared favorably to my other courses.	3.9	5.5	8.6	27.3	23.4	16.4	14.8	4.7	1.6
PSS9	I feel that the quality of the course I took was largely unaffected by conducting it via the Internet.	9.4	10.9	15.6	18	14.1	19.5	12.5	4.3	1.9
PSS10	I was disappointed with the way this course worked out (reverse-coded).	25.8	24.2	17.2	13.3	11.7	4.7	3.1	2.9	1.7
PSS11	If I had to do it over, I would not take this course via the Internet (reverse-coded).	32	14.8	13.3	14.1	7.8	10.2	7.8	3.1	2.0
PSS12	Conducting the course via the Internet made it more difficult than other courses I have taken (reverse-coded).	22.7	18	16.4	20.3	15.6	5.5	1.6	3.1	1.6

Table 7. Respondents' perceptions concerning course satisfaction (Valid %)

The answers to the last three statements were reverse-coded to conduct further data analyses. Correlation analysis among statement answers (coefficients among 0.39 and 0.86), CFA results (χ^2/df : 399.7, NFI: 0.983, CFI: 0.985, GFI: 0.989, AGFI: 0.985, TLI: 0.981, SRMR: 0.075, RMSEA: 0.241) and

Cronbach's α value (0.939) confirmed that the selected statements express successfully student satisfaction. The average value for perceived student satisfaction (PSS) scale was 4.68 (SD = 1.35). The PSS scale was also significantly positively correlated with the individual responses, confirming its ability to represent all responses (Table 8).

PSS1	PSS2	PSS3	PSS4	PSS5	PSS6	PSS7	PSS8	PSS9	PSS10	PSS11	PSS12
.863**	.829**	.763**	.777**	.778**	.870**	.808**	.765**	.725**	.732**	.677**	.733**

** . Correlation is significant at the 0.01 level (2-tailed)

Table 8. Spearman's correlation between the student satisfaction scale and its items

ANOVA analysis results suggest that sociodemographic characteristics have similar impact on student satisfaction scale [gender ($p = 0.858$), age category ($p = 0.004$), marital status ($p = 0.194$), residence ($p = 0.253$), another degree ($p = 0.012$), income level ($p = 0.780$)] like the instructor performance and course evaluation scales.

Correlation among the four scales

Pearson's correlation analysis (Table 9) indicated that all four scales are relatively highly correlated among them. Linear regression analysis was applied to examine the impact of IP, CE and SII scales, as well as of the sociodemographic characteristics on the perceived student satisfaction (PSS) scale. Stepwise method was employed and it revealed that only two factors, course evaluation (CE) and instructor performance (IP), have a significant impact on perceived student satisfaction. The linear prediction model was statistically significant ($F(2, 125) = 67.504$, $p < 0.001$), and explained 51.9% of the volatility of the PSS scale ($R^2 = 0,519$, $R^2_{adj} = 0,512$).

	IP	CE	SII
PSS	.654**	.0706**	.570**
IP		0.805**	.682**
CE			.693**

** . Correlation is significant at the 0.01 level (2-tailed)

Table 8. Pearson's correlation among PSS, IP, SE and SII scales

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	-0,571	0,491		-1,162	0,248	-1,543	0,401
CE-Factor	0,669	0,137	0,510	4,877	0,000	0,397	0,940
IP - Factor	0,360	0,154	0,244	2,330	0,021	0,054	0,666
Excluded							
	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
					Tolerance	VIF	Min Tolerance
SII	,107	1,192	0,235	0,106	0,476	2,101	0,313

Gender	-,050	-0,798	0,427	-0,071	0,973	1,028	0,342
Age	,086	1,353	0,178	0,121	0,942	1,062	0,348
Marital Status	,070	1,120	0,265	0,100	0,980	1,021	0,345
Residence	-,117	-1,903	0,059	-0,168	0,991	1,009	0,349
Another Degree	,074	1,156	0,250	0,103	0,946	1,057	0,345

Table 9. Linear regression estimates

It can be concluded that, in terms of overall perceived satisfaction, students do not differ in terms of their socio-demographic characteristics, while among the three satisfaction scales used as explanatory variables, the student-instructor interaction scale did not emerge as a significant influence of overall satisfaction. Concerning the other two scales, the influence of the course evaluation scale (CE), ($B_{std} = 0.510$) was found to be greater for students' satisfaction than the instructor performance scale (IP), ($B_{std} = 0.244$).

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The study results demonstrate the effectiveness of the three selected dimensions of satisfaction in distance learning, namely student-instructor interaction, instructor performance and course evaluation. Moreover, the results feature that the scale of perceived satisfaction is a suitable tool for detecting the quality of distance learning courses. These dimensions can be understood as reflecting the quality of the course presentation, feedback and overall interaction with the instructors, student learning experiences, workload, ease of communication and the way the system operates for the students.

In particular, the majority of students reported high levels of satisfaction for student-instructor interaction, instructor performance, and course evaluation, confirming previous reports (Ali & Ahmad, 2011; Arbaugh, 2000; Rizwan & Iftikhar, 2019). This reveals that, as in the case of traditional education, there is also an acceptable level of interaction in distance learning between students and their instructors, and the lessons are up to date and well designed, with instructors possessing the required skills and knowledge.

Among the three satisfaction scales, in terms of overall perceived satisfaction, the student-instructor interaction scale emerged as a non-significant influence, while the course evaluation scale was found to have a greater influence on students' satisfaction in relation to the instructor performance scale). This indicates that the personal characteristics of the instructor, as reflected in the quality of the course offered to the students, is an important parameter in the quality of the educational process. Even more important, however, is the ability of the instructors to offer a complete educational experience to the

students, their perception of its peculiarities and their ability to recognize the special requirements of the instructors. The need to ensure that instructors receive continuous training in the distance learning processes is highlighted as a measure that could upgrade the quality of the educational experience provided and the students' overall satisfaction.

The conclusions of the present work are emphasized in the analysis of the factors influencing perceived student satisfaction. The main finding that stands out is that a relatively small level of agreement was manifested in the statements about instructors' effectiveness ($M = 4.8$), as well as the tendency of instructors to provide suitable stimuli to students to help them in their learning ($M = 4.6$). These findings indicate the desire of students to enrich the learning process with activities that maintain the interest of the learner during the teaching process. The small level of agreement concerning the frequency of information provided by instructors related to students' progress ($M = 2.9$) also demonstrates the need to create direct interaction processes. Students want to have a clear picture of their performance as well as their position in relation to the other students taking the same distance learning course, in terms of the learning objectives of the course.

In the context of the implementation of measures towards this direction, it was found that most of the socio-demographic factors recorded in the research were found not to significantly affect the values of the instructors' performance, which demonstrates the homogeneity of responses among the students who participated in the research between the different factor levels involved in the model. However, participants that already hold a degree and, consequently, are older scored significantly higher than their classmates for instructor performance, course evaluation and perceived student satisfaction scales. This finding probably implies that mature students with higher experience in tertiary education appreciate more their instructors' performance acknowledging the various obstacles they have to overcome to provide the most appropriate educational circumstances to their students.

The high standard deviation values for most of the components denoting student satisfaction indicate the probable existence of discrete student segments. It seems that some students favor online distance learning, while others are more inclined towards the traditional face-to-face educational system. Therefore, traditional universities should further investigate and consider modern students' needs, lifestyles and preferences when planning their future strategies, including the online distance learning options in their offers to future students.

Nevertheless, there are some limitations to this study. The relatively small sample size may not be entirely representative of the majority of distance learning students at universities. As for the questionnaire used, it is appropriate to repeat its weighting among a larger sample in the future to

document the validity of its structure, offering the Greek scientific community yet another tool to detect students' views.

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DEFINING THE ALTERNATIVE PARADIGM OF MEASURING DEVELOPMENT AND GROWTH

Ojha Sandeep¹; Al Alawi Al Amir¹; Ojha Shubha²

¹UTAS, College of Applied Sciences, Salalah, Oman

²National Law University, Jodhpur, India

ABSTRACT

For the purpose of evaluating and ranking the wealth of countries, political theorists, and economists all across the world have traditionally regarded the measures of Gross Domestic Product, Gross National Product or other related indicators as the ultimate barometers. However, questions and concerns were raised regarding the true worth of GDP and at the same time, there was a surge in calls for employing alternative indicators to measure the wealth and welfare of nations across the globe. Increasingly, development economists have become aware that growth of output or income by themselves are not adequate indicators of development, and that the reduction of poverty and the satisfaction of basic human needs are goals that ought to be reflected in a measure of development. The heavy emphasis on GDP and its growth rate was based on doubtful assumptions. Either it was assumed that economic growth has a tendency to automatically 'trickle down' to the poor, or it was thought that, where there was no automatic tendency for benefits to trickle down, governments would take corrective action. The foremost objective of this study is to discuss how the economic trajectory of developing countries cannot be measured solely using the traditional indicators. Basic human needs have become more relevant in the recent time and thereby, a new measure paradigm has come into picture, which involves various alternative indicators that play a significant role in the improvement of development outcomes of developing countries.

Keywords: Gross Domestic Product; Gross National Product; Wealth; Indicators; Development; Human Needs; Economic.

INTRODUCTION

For the purpose of evaluating and ranking the wealth of countries, political theorists, and economists all across the world have traditionally regarded the measures of Gross Domestic Product ["GDP"], Gross National Product ["GNP"] or other related indicators as the ultimate barometers. (Abdul Aziz *et al.*, 2015). In the year 1937, the novel conceptualization of GDP was attempted by **Simon Kuznets**, an American economist and statistician, in his report to the United States Congress, "**National Income, 1929-35.**" (Dickinson, 2011). The original idea of Kuznets was to capture, in a single measure,

all economic production by individuals, companies, and the government. However, questions and concerns were raised regarding the true worth of GDP and at the same time, there was a surge in calls for employing alternative indicators to measure the wealth and welfare of nations across the globe. (Andester, 2019). Increasingly, development economists have become aware that growth of output or income by themselves are not adequate indicators of development, and that the reduction of poverty and the satisfaction of basic human needs are goals that ought to be reflected in a measure of development. (Hicks and Streeten, 1979) Thus, the Nobel-winning metric of GDP, that was born out of the carnage of the Great Depression and World War II and was regarded as the ultimate measure of a country's overall welfare, a window into an economy's soul, and the defining indicator of the last century, is now considered too narrow for the troubled economic times of the contemporary globalized world.

The heavy emphasis on GDP and its growth rate was based on doubtful assumptions. Either it was assumed that economic growth has a tendency to automatically 'trickle down' to the poor, or it was thought that, where there was no automatic tendency for benefits to trickle down, governments would take corrective action. Highly concentrated and unequal growth was observed in some countries for prolonged periods, so that there was no universal tendency for growth to spread. Nor did governments always show signs of correcting gross inequalities. Thus, the assumptions failed. The disappointment with GDP led to greater emphasis on employment and redistribution. But it was soon seen that redistribution from growth only yielded very meagre results. Furthermore, it is clear that mass poverty can coexist with a high degree of equality. The concern then shifted to eradication of absolute poverty, particularly by concentrating on basic human needs. This new focus on meeting basic human needs called for an indicator or a set of indicators by which deprivation could be judged and measured, and policies directed at its alleviation and eradication could be initiated and monitored.

A turning point in the history of national development processes and a major milestone in the context of New Economics was the establishment of the **Commission on the Measurement of Economic Performance and Social Progress** ["**Stiglitz Commission**"] in 2008. It was chaired by the Nobel-Prize winning economist **Joseph Stiglitz**. Other notable members of the commission were Amartya Sen and Jean-Paul Fitoussi and therefore, the report of the Commission is many a times referred to as the "Stiglitz-Sen-Fitoussi Report." The Stiglitz Commission was formed at the request of French President Nicolas Sarkozy. The reason for its formation was officially explained this way- "Increasing concerns have been raised since a long time about the adequacy of current measures of economic performance.... there are broader concerns about the relevance of these figures as measures of societal

well-being, as well as measures of economic, environmental, and social sustainability.” At the conclusion of its work, the Commission reported- “the time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people’s well-being.”

The discourse that follows is broadly classified into two parts. The *first* part delves into the analysis and discussion regarding the alternatives to the traditional growth paradigm (i.e. alternative indicators) and how they are instrumental in improving the development outcomes of developing countries. The *second* and last part culminates into a conclusive analysis and cruises through certain suggestions in this context.

RESEARCH METHODOLOGY AND LIMITATIONS

Research Problem: The paper discusses how the economic trajectory of developing countries cannot be measured solely using the traditional indicators. Basic human needs have become more relevant in the recent time and thereby, a new measure paradigm has come into picture which involves various alternative indicators that play a significant role in the improvement of development outcomes of developing countries.

Collection of Data: Several research journals including research papers and articles have been used by the researcher. Additionally, various reports, websites and books have been referred during the study. The data collected is mainly secondary in nature.

OBJECTIVES OF THE STUDY

- To examine the traditional approach of measuring economic development.
- To determine the drawbacks of the said traditional approach.
- To identify the alternatives to the traditional approach
- To analyse the role of alternative indicators in improvement of development outcomes of developing countries.

Limitations: The study is based mainly on secondary data as the researcher did not have sufficient access to primary data.

RESEARCH QUESTION

- What was the traditional approach of measuring economic development?
- What are the drawbacks of the said traditional approach?

- What are the alternatives to the traditional approach?
- What is the role of alternative indicators in improvement of development outcomes of developing countries?

EVOLUTION OF PERSPECTIVES ON DEVELOPMENT

Before examining the process of evolution, it is important to understand “**development**” and demarcate the differentiation between “**economic growth**” and development. Economic growth may be measured by examining various outcomes of the production system. It takes place when there is a sustained increase in a country’s output (as measured by GDP or GNP) or in the per capita output (GDP or GNP per person) (Khan and Khan, 2012). In regard to the meaning of development, Dudley Seers’ adumbration of the salient questions, which must be addressed are: (1) What has been happening to poverty? (2) What has been happening to unemployment? (3) What has been happening to inequality? (Seers, 1969). If all three of these have declined from high levels, then beyond doubt this has been a period of development for the country concerned. If one or two of these central problems have been growing worse, especially if all three have, it would be strange to call the result ‘development’ even if per capita income doubled. However, goes even beyond the economic criteria laid down by Seers and looks upon development as a “multidimensional process involving major changes in social structures, popular attitudes and national institutions as well as acceleration of economic growth, the reduction of inequality and eradication of absolute poverty” (Goulet, 1971). Further, development occurs when income increases along with other standards of living (reduced mortality rates, lower illiteracy, increased in education, and increase in life expectancy) and therefore, it can be said that development is a much wider concept (Brinkman, 1995).

Prior to 1970s- “getting the growth job done”

Traditionally and in strictly economic terms, development means the capacity of a national economy to generate and sustain an annual increase in its GDP at rates of perhaps 5% to 7% or more. A common alternative economic index of development has been the use of rates of growth of per capita GNP to take into account the ability of a nation to expand its output at a rate faster than the growth rate of its population. Development was seen as an economic phenomenon in which per capita GNP growth would either trickle down to the masses in the form of economic opportunities or create the necessary conditions for the wider distribution of economic and social benefits of growth. Problems of poverty, unemployment, and income distribution were of secondary importance to “**getting the growth job done**”.

Redefining development post-1970s

In the aftermath of the experiences of 1950s and 1960s it was observed that many nations did achieve their growth targets but there were no improvements in terms of standard of living of the masses. (Pettinger, 2016). It was realized that there was something wrong with the narrow definition of development and that economic growth of GNP though necessary was not sufficient for the elimination of poverty. This has been generally referred to as “**dethronement of GNP**” (Mukherjee, 2016). Therefore, to remove poverty measures for making ‘direct attack on poverty’ were suggested. Thus, during the 1970s, economic development was redefined in terms of the reduction or elimination of poverty, inequality, and unemployment within the context of growing economy. “**Redistribution from growth**” became a common slogan (Soubotina, 2000). In 1991, the World Bank also echoed the prospect of a broader perspective of development in the World Development Report- *“The challenge of development...is to improve the quality of life. Especially in the world’s poor countries, a better quality of life generally calls for higher incomes – but it involves much more. It encompasses as ends in themselves better education, higher standards of health and nutrition, less poverty, a cleaner environment, more equality of opportunity, greater individual freedom, and a richer cultural life”* (World Bank, 1991).

Development must, therefore, be conceived of as a multidimensional process involving major changes in social structures, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of poverty. Development in its essence represents the whole gamut of change by which the entire level of living of masses of the people is improved. Most of the conventional indicators provide an inadequate and limited sense of what development truly means. One of the most significant current discussions in measuring development is the choice of indicators that would ensure a more holistic and comprehensive measurement of development. According to Sen, *“An adequate conception of development must go much beyond the accumulation of wealth and the growth of national product and other income-related variables, without ignoring the importance of economic growth, we must look well beyond it.”* (Sen, 1991). From Sen’s perspective, it can be understood that development is essentially concerned with not only the wealth but also the enhancement it does to people’s life. Therefore, the indicators used to measure development should take into account every aspect of people’s life, for instance, economic, social, environment and political. In line with this proposition, Irma Glicman Adelman, a Romanian-American economist, and Cynthia Taft Morris, a development economist who worked on the Marshall Plan, conducted an early major study that sought to measure development in terms of a pattern of interaction among social, economic, and political factors. (Adelman and Morris, 1967). The following discussion deals with the various indicators comprising the alternative paradigm of measuring development and growth.

HUMAN DEVELOPMENT INDICES- THE CATALYSTS FOR NEW THINKING IN DEVELOPMENT ECONOMICS

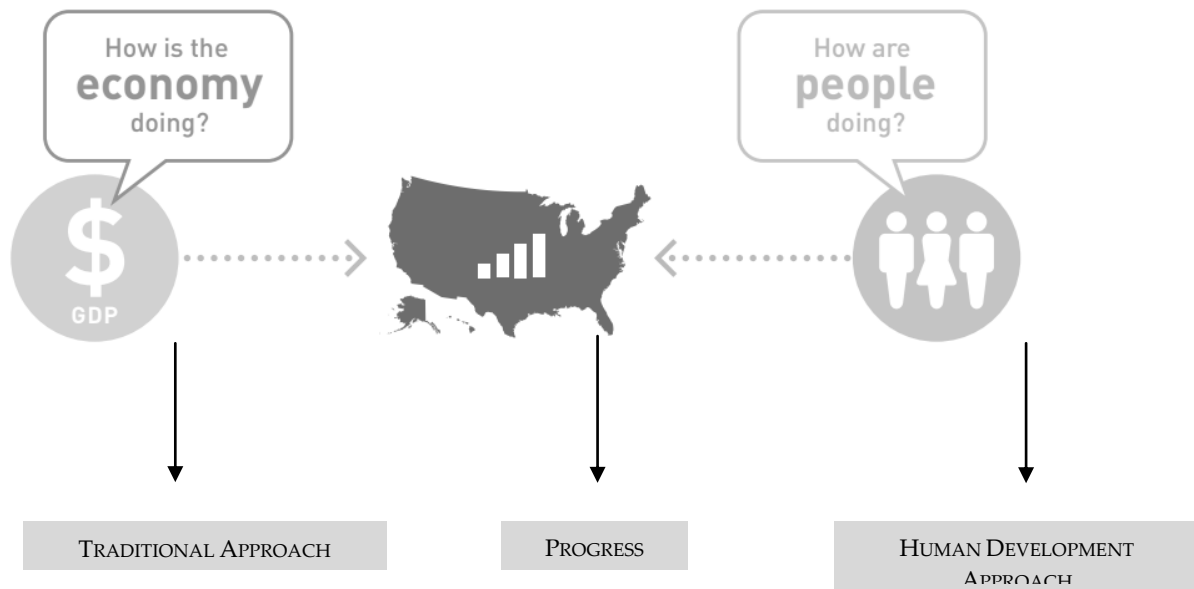


Figure 4. Human Development Approach

Human development indices capture key dimensions of national well-being in one framework. The credit for the introduction of the concept of human development goes to **Mahbub ul Haq**. At the World Bank in the 1970s, and later as minister of finance in his own country, Pakistan, Dr. Haq argued that existing measures of human progress failed to account for the true purpose of development, that is to improve people's lives; in particular, he believed that the commonly used measure of GDP failed to adequately measure well-being. (Sharps *et al.*, 2008). As per the "**capability approach**" propounded by **Amartya Sen**, 1999, human "well-being" means being well, in the basic sense of being healthy, well nourished, well clothed, literate, and long-lived, and more broadly, being able to take part in the life of the community, being mobile, and having freedom of choice in what one can become and can do and none of these aspects could be captured using the conventional indicators. The first Human Development Report ["**HDR**"] was published by a team led by Dr. Haq in 1990 and ever since that the HDR is published annually by the United Nations Development Programme ["**UNDP**"] (Baru and Haq, 1998)

Concepts such as the **Human Development Index** ["**HDI**"] and the Gender-related HDI ["**GDI**"] have gained popularity in the discourse on development. In less than 5 years from its inception, the HDR has evolved from being an annual report published under the aegis of the UNDP into an agenda for action for developed and developing nations and NGOs. Dr. Haq sought help of Amartya Sen, Meghnad Desai and Sudhir Anand in constructing the HDI which would measure human development in terms of longevity, knowledge and living standard, with equal weight being assigned

to each. The human development model, that seeks a holistic measure of a country's progress, emphasizes the everyday experience of ordinary people, including the economic, social, legal, psychological, cultural, environmental, and political processes that shape the range of options available to us. This approach soon gained support as a useful tool for analysing the well-being of large populations.

In addition to the global Human Development Report that comes out annually, more than five hundred national and regional reports have been produced in the last fifteen years, with an impressive record of provoking public debate and political engagement. Human development can be understood as a journey- Even before one's life begins, parents play a role in setting the trajectory of one's human development; numerous factors and experiences alter the course of one's journey through life, helping or hindering one's ability to live a life of choice and value (Figure 2).

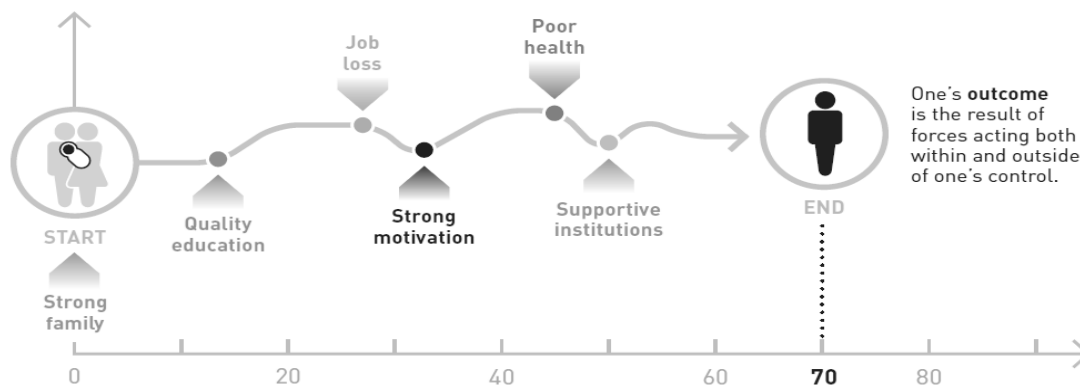


Figure 5. Human Development as a Journey

Human Development Index (HDI) and its role in improving development outcomes

Development should emphasize economic growth as a means and not the end of development, and therefore should consider health, education, standard of living, human rights, political freedom, and self-respect as more important concerns of human development (Ray, 2008). HDI is the best example of a single index that consolidates a plurality of indicators to measure aggregate performance in different areas at the national-level. HDI has been an annual feature of every HDR ever since 1990, ranking virtually every country in the world. It is rooted in a notion of development conceived as a process of enlarging people's choices and opportunities. HDR and HDI have always been published in tandem, however, it is important to draw a distinction between the concept of human development and the index of human development- The concept is holistic, encompassing a wide range of human values, such as religious expression, environmental sustainability, cultural liberty, political participation, self-confidence, community bonds, dignity, non-discrimination, and others. By contrast, the index is restricted to statistics on longevity, education, and material well-being; unlike measurements of empowerment or psychological well-being, for example, statistics in these three

areas can be objectively measured and compared across regions and nations. Therefore, the HDI provides a complete picture of human lives and the evolution of the concept of well-being across different parts of the world by identifying major issues and challenges in the afore-mentioned three areas and monitoring surges and falls over time.

HDI represents the construction of a composite index that is based on three basic dimensions of human development- (1) to lead a long and healthy life, (2) to acquire knowledge and (3) to have access to resources needed for a decent standard of living. The HDI contains four variables to represent the three dimensions-

- (a) Life expectancy at birth- to represent the dimension of “**longevity**”.
- (b) Adult literacy rate and combined enrolment rate at the primary, secondary, and tertiary levels- to represent the dimension of “**knowledge**”.
- (c) Real GDP per capita at purchasing power parity (PPP\$)- to represent the dimension of “**standard of living**”.

Advantages- role of HDI in improving development outcomes of developing countries:

HDI helps to systematically and comprehensively analyze the comparative status of socioeconomic development in developing countries. It effectively facilitates the evaluation of the progress of developing countries and also, allows inter-country comparison and inter-temporal comparisons of living standards (Doessel and Gounder, 1994). This is because HDI uses data that are comparatively easily available in most countries, thereby allowing for widespread international comparisons. (Herrero *et al.*, 2010). Over the years, the index has revealed striking disparities between groups and shed needed light on why different results were achieved. Furthermore, the composition of HDI appears to reward the formulation of various social policies because the government of a developing country can specifically find an associated cost or effort required to directly improve the three indicators of HDI (Lind, 2004). For example, developing countries can improve life expectancy by improving the health of their least advantaged groups, thus, achieving a better HDI score.

The main advantage of HDI is its simplicity, and its small data requirements. It has attracted huge media attention, and generated country rankings that depart significantly from those based on conventional economic measures. Because of the simplicity of HDI, it is easily communicated and understood by the general public, and many grass-root movements have favoured various applications of this method. It has become one of the most widely used indices of well-being and has succeeded in broadening the measurement and discussion of well-being beyond the narrow confines of income. Furthermore, it has encouraged investments in data collection on the well-being of citizens and spurred many developing countries to try to improve their development outcomes and thereby, their rankings on the index. However, there are certain limitations associated with HDI.

Limitations

- (a) Aggregation of indicators leads to the methodological problem of neglecting individual conditions.
- (b) The small number of indicators in HDI somehow impedes it to successfully capture various aspects of development, thus making it unable to respond better to social problems like corruption.
- (c) Some argue that HDI is a reductionist measure as it incorporates just a subset of possible human choices and leaves out many aspects of life that are of fundamental importance, according to the definition of human development by UNDP (Ranis et al., 2006).
- (d) Along the same line, HDI ignores the gender inequality aspect in a society to represent the development of a country. The index also overlooked two important dimensions of human development, which are environment and equity (Sagar and Najam, 1998).
- (a) A fifth limit has to do with the interpretation of changes in these aggregate indicators. For example, levels of the HDI give a fresh look at the world, since the country rankings it generates are quite different from those based on GDP per capita. However, as time passes and the HDI is updated year-to-year, its movements have tended to be dominated by changes in the GDP component, at least for the developed countries (such as France and the United States) whose performance in the health and education domains is close to the top.
- (b) The exclusion of ecological considerations and equity as indicators of development inhibits the accurate representation of the realities of the world. Furthermore, focusing exclusively on national performance and ranking does not accurately portray development from a global perspective.
- (c) HDI has been criticised to be an incomplete measure of human development and painted a distorted picture of the world.
- (d) While HDI carries useful information about a country's current development, it ignores the future level of development as the index used an off-count of past efforts, rather than the estimation of the present efforts or prediction of the future (Ivanova and Srinivasan, 1999).
- (e) Finally, the use of the equal weighted sums of each indicator in the HDI is also an issue. This method does not allow for a diversity of viewpoints about the relative importance of various dimensions. A single set of weights is applied to the whole society, independent of the heterogeneity of people's attitudes towards income, leisure, health, education, etc. While, in principle, different weights could be used for different countries, this would make the choice of weights even more delicate and effectively prevent any comparisons across countries.

In the long run UNDP is recommended to refine the index to be more comprehensive and reflect more aspects of human development and inequalities within a country. (Nubler,1991). From the above analysis, it can be concluded that HDI is basically devised as a summary, not a comprehensive measure of human development. Since the introduction of HDI, so many critiques or comments to improve this development index have been presented. Therefore, the search for future methodological and data refinements to HDI continues (Human Development Report, 2001).

Gender Development Index and a Scrutiny of its Role

Besides HDI, HDR also presents other composite measures related to gender, namely, Gender-related Development Index [**"GDI"**] and Gender Empowerment Measure [**"GEM"**]. According to Schuler (2006), both GDI and GEM were created to include gender inequality issues in human development. In 1995, Sudhir Anand and Amartya Sen wrote a background paper for the UNDP Human Development Report 1995. The approach of the paper was that gender inequality in an indicator of human development entailed a 'loss', which could be captured through use of Atkinson's concept of **"equally distributed equivalent"** value of the indicator in question. For an indicator of achievement X (e.g. education), they denoted X_f as the female achievement and X_m as the male achievement. The equally distributed equivalent achievement X_{ede} was then calculated as a **"(1 - ϵ)-average"** of X_f and X_m rather than a simple arithmetic average of the two achievements, where the parameter $\epsilon \geq 0$ represents the social aversion to inequality (or preference for equality). They called X_{ede} a **"gender-equity sensitive indicator"** [**"GESI"**] of overall achievement **"which takes note of inequality, rather than [being] a measure of gender equality as such."** The properties of X_{ede} were examined in great detail in that paper and its appendices and they stated that X_{ede} was not a measure of gender equality, but that **"it incorporates implicitly something like a gender equality index"**. GDI involves measurement of the same dimensions as HDI, while discounting them for gender inequality. This means GDI should be interpreted as HDI discounted for gender disparities in its three components and should not be interpreted

independently of HDI. Meanwhile, GEM is meant to be interpreted as an index of gender equity in political and economic participation and decision-making as well as power over economic resources. It consists of three indicators which focus on empowerment dimension. The selected indicators are male and female shares of parliamentary seats, male and female shares of administrative, professional, technical, and managerial positions, and power over economic resources.

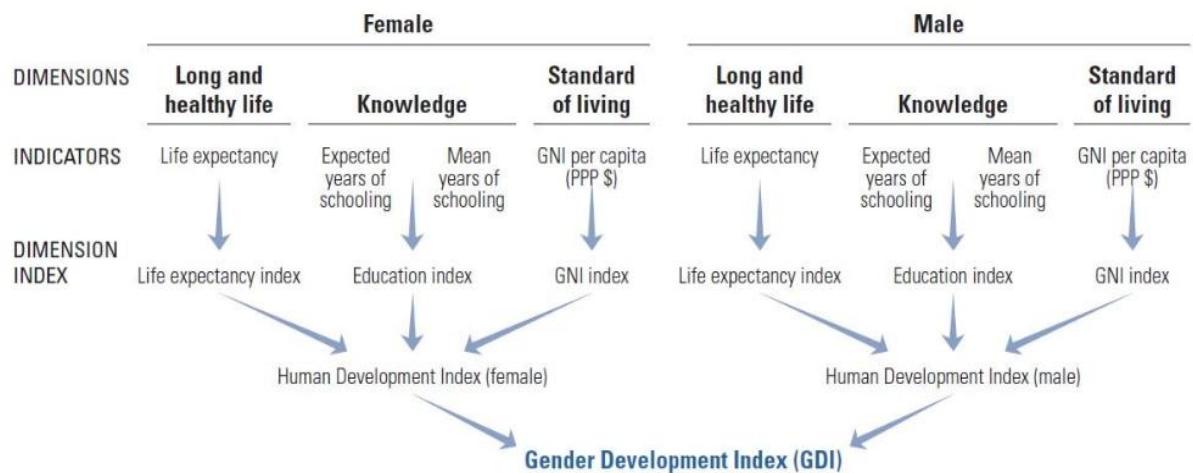


Figure 6. Gender Development Index

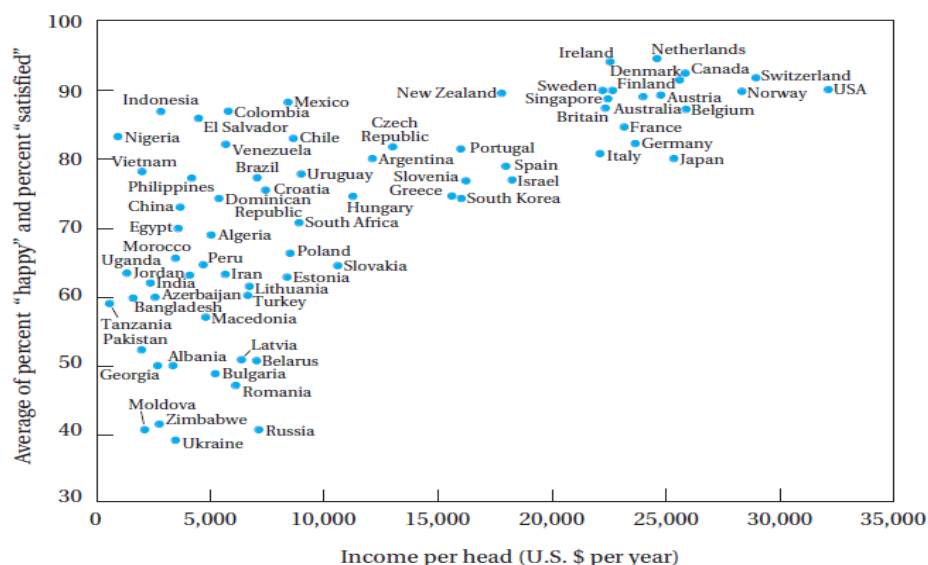
GENDER INEQUALITY INDEX

The Human Development Report, 2010 introduced the Gender Inequality Index ["GII"] in order to "reflect women's disadvantage in three dimensions – reproductive health, empowerment and the labour market." For reproductive health, GII uses two indicators: the reciprocal of the maternal mortality ratio ["MMR"] and the reciprocal of the adolescent fertility rate ["AFR"], which the GII sub-aggregates using a geometric mean. The corresponding 'male' values are set at 1, not 0. It is not clear why this is so, but presumably in order to avoid zero denominators in the reciprocals. For empowerment, two indicators are chosen: gender-specific educational attainment (secondary level and above) ["SE"] and gender-specific parliamentary representation ["PR"]. SE and PR are also sub-aggregated using a geometric mean. For the labour market (economic activity), GII adopts the gender-specific labour-force participation rate ["LFPR"]. The three gender-specific sub-indices are then separately aggregated for females and males, respectively, again by use of geometric means. This yields the female and male indices, GF and GM. A harmonic mean is then taken of GF and GM, which "captures inequality between women and men and adjusts for association between dimensions". Next, a reference standard is constructed by first taking an arithmetic average of each gender-specific sub-index (two of which are themselves geometric means), and then aggregating the three arithmetic averages of the dimensional sub-indices by taking their geometric mean. Finally, GII is then defined as 1 minus the harmonic mean of GF and GM divided by this reference standard. GII is neither a gender inequality index nor a measure of female disadvantage. It mixes absolute and relative achievements of women and men; it combines well-being and empowerment indicators; it penalizes low-income countries for poor performance in reproductive health, which may be due to their inadequate health systems rather than gender-related norms or discriminatory practices. GII's complex formulation in terms of "general means of general means" tends to obscure, rather than clarify, the meaning of the

estimated values of GII. For these and other technical reasons discussed above, GII is not considered fit for purpose.

HAPPINESS APPROACH OF DEVELOPMENT

One strand of criticism of the conventional indicators focuses on the inability of GDP to capture the subjective well-being or happiness of a populace. (Balasubramanian, 2019). Happiness is a part of human well-being, and greater happiness may in itself expand an individual's capability to function. As Amartya Sen has argued, a person may well regard happiness as an important functioning for her well-being. In recent years, economists have explored the empirical relationship, across countries and over time, between subjectively reported satisfaction and happiness and factors such as income. One of the findings is that the average level of happiness or satisfaction increases with a country's average income, for example, roughly four times the percentage of people report that they are not happy or satisfied in Tanzania, Bangladesh, India, and Azerbaijan as in the United States and Sweden. But the relationship is seen only up to an average income of roughly \$10,000 to \$20,000 per capita, as shown in Figure 4.



Source: From *Happiness: Lessons from a New Science* by Richard Layard, copyright © 2005 by Richard Layard. Used by permission of The Penguin Press, a division of Penguin Group (USA) Inc. and United Agents Ltd. (www.unitedagents.co.uk) on behalf of the author.

Figure 7. Income and Happiness- A Comparison

In the context of the relationship between happiness and income, the “**Easterlin Paradox**” assumes a lot of significance. The paradox has intrigued and haunted the economics profession, especially the branch associated with conventional measurement of growth and development. The Easterlin Paradox was theorized by **Professor Richard Easterlin**, who is a professor of economics at the University of Southern California. In his paper titled, “Does Economic Growth Improve the Human Lot? Some

Empirical Evidence”, he concluded that a country’s level of economic growth/development and level of happiness are not connected. It is now more than 40 years since Richard Easterlin raised a paradox that states that beyond a certain income level, where basic needs are met there may be little, if any, relationship between increases in per capita income and average social welfare or happiness. (M. Ali Choudhary, 2012). Essentially, he suggests that an increase in economic growth could actually reduce some of the effects of happiness by that economic growth.

The paradox translates the tireless and futile quest for happiness into a statistics-based narrative. Richard Easterlin has shown, based on a large number of surveys that indices of satisfaction have been remarkably stable regardless of the level of wealth a country has achieved. The United States may be twice as rich as fifty years ago, but its citizens are no happier. And above all, their financial problems have not decreased. The simplest explanation for that paradox, as Kahneman and Tversky argue, is that wealth is always relative, measured by a point of reference that shifts as one becomes more prosperous (Cohen, 2018).

It took quite a while for the so-called Easterlin paradox to garner much attention from other economists. But the recent emergence of behavioural economics, which takes psychological research seriously, has caused an explosion of surveys about happiness and well-being (Fox, 2012). The trend has been fuelled by the example of Bhutan, where the former king **Jigme Singye Wangchuck** (the fourth king of Bhutan) began talking about “**Gross National Happiness**” [“GNP”] in the 1970s, shortly after he came to power and claimed that GNP was more important than GDP. A 1987 interview with the *Financial Times* alerted the world to his view with respect to sending a long parade of happiness pilgrims to Bhutan and spurring the king to eventually convert GNH into something tangible enough to measure with development indicators and polling data. When the 5th king of Bhutan, **Jigme Khesar Namgyel Wangchuck**, came into power, he declared-

“Today, Gross National Happiness has come to mean so many things to so many people but to me it signifies simply - Development with Values. Thus, for my nation today GNH is the bridge between the fundamental values of kindness, equality and humanity and the necessary pursuit of economic growth. GNH acts as our National Conscience guiding us towards making wise decisions for a better future.” Under the Bhutanese Constitution, one of the principles of state policy is “to promote those conditions that will enable the pursuit of Gross National Happiness.”

Now Britain’s Conservative-led government is compiling a national happiness index, and Nicolas Sarkozy, France’s president, wants to replace the traditional GDP count with a measure that takes in subjective happiness levels and environmental sustainability. (Seligman, 2011)

Gross National Happiness Index and its relevance in policy-making

Much of the UN/OECD/EU Wellbeing and Happiness agenda of the last two decades can be attributed to Bhutan's internationalising of its GNH policy stemming from a widespread perception of Bhutan as a “real life Shangri-La” (Kelly, 2012). Bhutan had adopted a holistic rather than an individual-centred policy instrument- the Gross National Happiness Index [“GNHI”]. The fourth Druk Gyalpo, His Majesty Jigme Singye Wangchuck, declaring that “Gross National Happiness” was “more important than Gross National Product,” set up a Gross National Happiness Commission with two main issues in mind- (a) The impact of economic development on the environment, and especially on the forest cover of his country; and (b) The impact of economic openness on social cohesion (Laurent, 2018). These issues reflected the cautious and balanced approach to development by Bhutan's monarchy, which further allowed the development of a new metric to assess happiness-

“In the GNH Index, unlike certain concepts of happiness in current western literature, happiness is itself multidimensional—not measured only by subjective well-being, and not focused narrowly on happiness that begins and ends with oneself and is concerned for and with oneself. . . the pursuit of happiness is collective, though it can be experienced deeply personally.” (Helliwell, 2012)

In other words, happiness according to the Bhutanese is not only multidimensional but also holistic, contrary to the approach centred on more-or-less-immediate life satisfaction. The GNHI was derived from the Gross National Happiness Survey of 2010. The four pillars of GNHI are:

- (a) Sustainable and equitable socio-economic development;
- (b) Environmental conservation;
- (c) Preservation and promotion of culture; and
- (d) Good governance.

The GNHI covers 9 domains- psychological well-being, health, time use, education, cultural diversity and resilience, community vitality, good governance, ecological diversity, and resilience and living standards and 33 indicators. When unpacked, the 33 clustered indicators have 124 variables that are the basic building blocks of GNHI (Ura et al., 2012).

$$\text{GNHI} = \text{Hh} + (\text{Hu} * \text{Anyh})$$

Hh → Headcount of happy people (% of total happy people)
 Hu → Headcount of unhappy people (% of total unhappy people)
 Anyh → Average sufficiency (% of domain in which not yet happy people have achieved sufficiency).

Role of GNHI in improving happiness of developing countries

The GNHI is formulated to provide an incentive to increase happiness. Its aim is not only to assess the status of happy people in a society. It is also concerned with the status of not-yet-happy people

(McGillivray and Clarke, 2006). Increasing happiness is a policy concern that involves civil servants, business leaders, and all the citizens, and the GNHI helps them in addressing this concern in practical ways. To increase happiness, one needs to identify people who are not yet happy. Once this segment of the population is identified, one needs to know the domains in which they lack sufficiency. This two-step identification procedure of direct relevance for policy-making and the structure of the GNHI are such that it allows analysis of those who are not identified as happy and the dimensions or domains in which they lack sufficiency. The nine-dimensional perspective of the index ensures a comprehensive analysis. All of the nine dimensions are needed for public policy (Ura et al., 2012)

The poverty measures under GNHI focus government attention on those who are suffering the most in material terms. The GNHI provides the overall goal for a society by including all citizens, young and old, rich, and poor, in key domains of their flourishing. While one will expect material poverty rates to decline, the GNHI will enable policy makers to see whether that decline is being accompanied by a decline in other social and environmental insufficiencies, or whether perhaps cultural, social, and psychological insufficiencies may increase as material deprivation decreases. Clearly, happiness is deeply personal and that is why GNHI is needed-

- (a) To compare the insufficiencies between happy and not-yet-happy people.
- (b) To analyse the structure of the insufficiencies among the not-yet-happy by domain.
- (c) To determine which domains and indicators should be targeted in priority for increasing happiness.
- (d) To identify insufficiencies by region, by gender, by age group, by marital status, and by occupational group of the not-yet-happy people.

Such an analysis will provide information that is requisite for policy recommendations towards increasing happiness and reducing insufficiencies in developing countries.

Happy Planet Index

The Happy Planet Index [**"HPI"**] is a new meaningful efficiency measure of progress. It tells us how well nations are doing in terms of supporting their inhabitants to live good lives now, while ensuring that others can do the same in the future. It points the way towards sustainable well-being for all (Abdallah, 2012).

GREEN GDP

Green GDP takes into account consumption of natural resources and degradation of the environment associated with the economic activities, and measures both the quantity and the quality of the economic aggregate. The concept of Green GDP was initially developed in the West in the 1960s, but

China was the first country to actually implement it in the measurement of its economic activities (Pearce et al., 1989).

GENUINE PROGRESS INDEX [“GPI”]

The Genuine Progress Indicator System of Sustainable Well-being Accounting is a new blueprint for measuring and managing the total wealth of nations, which was applied for the first time to the province of Alberta, Canada in the report Sustainability Trends 2000. GPI accounting yields a comprehensive assessment of the total well-being of a society, its economy, and the natural environment. (Anielski, 2001)

SUSTAINABLE DEVELOPMENT GOALS

The 1992 Earth Summit in Rio had confirmed that the concept of sustainable development is the new paradigm that respects economic growth and prosperity as necessary elements of development but at the same time does not neglect other aspects of development- ecological, social, cultural, spiritual, moral. Indicators of progress-regress within the framework of the concept of sustainable development measure states and processes to which little or no attention was paid in the past: quality of life of the future generations, biological diversity, ozone holes, eradication of global poverty, preservation of local communities and cultures, democracy, cooperation, participation, etc. (Odobasa,1999). Sustainable Development indicators are used across the OECD and the EU, and throughout all levels of the economy. In 1994 the UK became one of the first countries to adopt sustainable development indicators as part of a pilot phase in response to the 1992 Rio Summit. In 2015, a summit attended by the heads of state adopted the Sustainable Development Goals [“SDGs”], a development over the earlier framework of Millennium Development Goals. The approval of the 2030 Agenda for Sustainable Development with 17 SDGs (Figure 5), 169 targets, and 232 indicators represents a paramount opportunity for transitions to new paradigms in assessing sustainability.

The SDGs, targets and indicators are integrated and indivisible, global in nature and universally applicable, taking into account different national realities, capacities and levels of development and respecting national policies and priorities. The defined Targets are aspirational and global. Each Government can set its own national targets guided by the global level of ambition while taking into account its own national circumstances. Each Government also gets to decide how these aspirational and global targets should be incorporated into national planning processes, policies, and strategies.

The SDG framework recognizes that each country faces specific challenges to achieve sustainable development and underscores the special challenges faced by the most vulnerable countries and, in particular, African countries, least developed countries, landlocked developing countries and small

island developing States, as well as the specific challenges faced by the middle-income countries. It also recognizes that countries in situations of conflict need special attention.



Figure 8. Sustainable Development Goals

CONCLUSION AND SUGGESTIONS

“Improving the quality of our lives should be the ultimate target of public policies. But public policies can only deliver best fruit if they are based on reliable tools to measure the improvement they seek to produce in our lives.”

-Angel Gurría, Secretary General of the OECD

From the above analysis, it can be concluded that the contemporary alternative paradigm is a better measurement framework than the traditional approach that focuses merely on economic growth and development. Issues such as social equity, economic prosperity, environment sustainability, justice, good governance, etc. cannot be tackled under the traditional framework. The alternative indicators, especially the framework of SDGs, ensures meeting the needs of the current generation without jeopardizing the abilities of the future generations. Poverty is a widespread phenomenon, especially in developing countries. Alternative indicators provide a holistic picture of progress/regress in different countries and thereby, creating better scope for comparison. Developing countries can observe various developments in other nations and apply similar strategies to improve their own development outcomes. For instance, serious efforts could be made to eliminate or alleviate poverty by observing poverty measures under GNHI. Keeping in mind the successful experience of Grameen Bank in Bangladesh that provided microfinance and how it can play a pivotal role in reducing poverty, other developing countries can resort to similar techniques to better their situation. High population is another major challenge for developing countries and indicators such as the HDI can facilitate

formulation of better plans and policies for population control. Environmental issues represent another set of alarming issues in today's times. Efficacious environmental health and conservation planning can be done on the basis of the results provided by indicators such as GNHI, HPI, Green GDP, etc. Policy and market failures are common phenomena in developing countries and alternative indicators play a major role in mitigating or avoiding these failures.

The alternative indicators, as they stand today, do not provide an impeccable framework. There is always a scope for improvement. At the simplest level, for instance, there exist indexes that try to 'green' the HDI by combining it with information on emissions of pollutants (M.C. Lasso de la vega & A.M. Urrutia, 2001). Even the conventional indicators were subjected to immense criticism and scrutiny when they were introduced, however, they continued to serve their purpose eventually. Similar reasoning is applicable in the case of alternative indicators. Simply relying on indicators will not fetch concrete results. Developing nations must learn from the experiences of other nations, for instance, New Zealand's Prime Minister, Jacinda Arden, recently proposed the idea of a 'wellness budget' for the country and suggested that well-being should be incorporated into their growth agenda (Jacinda Arden, 2019).

In essence, all developing countries must focus on moving beyond income, beyond averages and beyond today!
(Conceição, 2019)

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SOCIO-CULTURAL DIMENSIONS, EMPLOYEE-RELATED ASSUMPTIONS AND HRM PRACTICES-A MULTIVARIATE MODEL IN A CROSS-NATIONAL SETTING

Papadionysiou, Evangelia; Myloni, Barbara

University of Patras, Business Administration, Patra, Greece

ABSTRACT

The purpose of this study is to present in what way socio-cultural dimensions and employee-related assumptions are related to human resource management (HRM) practices in different settings, as Scandinavia and Greece. These locations were selected as they belong to two distinct cultural clusters, thus making cultural differences more apparent. Interestingly, not much research has compared these specific countries, making it worthwhile to explore the differences or similarities that may exist. Additionally, this study constitutes the first attempt to apply and test Aycan and Kanungo's model in these contexts.

Specifically, differences in HRM practices are examined on the basis of different environmental forces, such as national and organisational cultures, which are analyzed in depth in order to provide comprehensive insights on their impact on human resource management practices in these different countries. Based on Aycan and Kanungo's theoretical model, we develop and test hypotheses that indicate how several socio-cultural dimensions and employee-related assumptions relate to human resource management practices. SPSS was used to test our hypotheses.

Some of our preliminary results reveal that characteristics of national culture such as paternalism, power distance, fatalism, loyalty towards community are linked with organizational culture characteristics, such as participation, responsibility seeking, proactivity and obligation to others. Awareness of these links could enable firms to create or improve some HRM practices based on these elements and give motives to enhance employees' performance.

Keywords: HRM Practices, International HRM, National Culture, Organisational Culture

INTRODUCTION

This study examines at what extent national and organizational cultures affect HRM practices in Scandinavia and Greece. Results are interesting as there is no much research comparing these specific areas (Georgen, Brewster and Wood, 2009). Also, the fact that these countries belong to distinct

cultural clusters make the differences or similarities that may come up to be more apparent (Stavrou, 2010). These links among these dimensions (national culture, organizational culture and HRM practices) are to be examined based to the following cultural model fit which is influenced by the original culture model fit of Ayman and Kanungo (1999) respectively.

LITERATURE REVIEW

The original culture model fit of Ayman and Kanungo (1999) contains 5 variables (macro-environment, micro-environment, national culture, organisational culture and HRM practices), we focus on the last three for the aim of this study. Each dimension includes some variables, based to this we refer some hypothesis which are to be analyzed in order to understand at what extent each dimension affects the other and to explain the results. The following cultural model fit (figure 1) is to assist us to examine the following hypotheses.

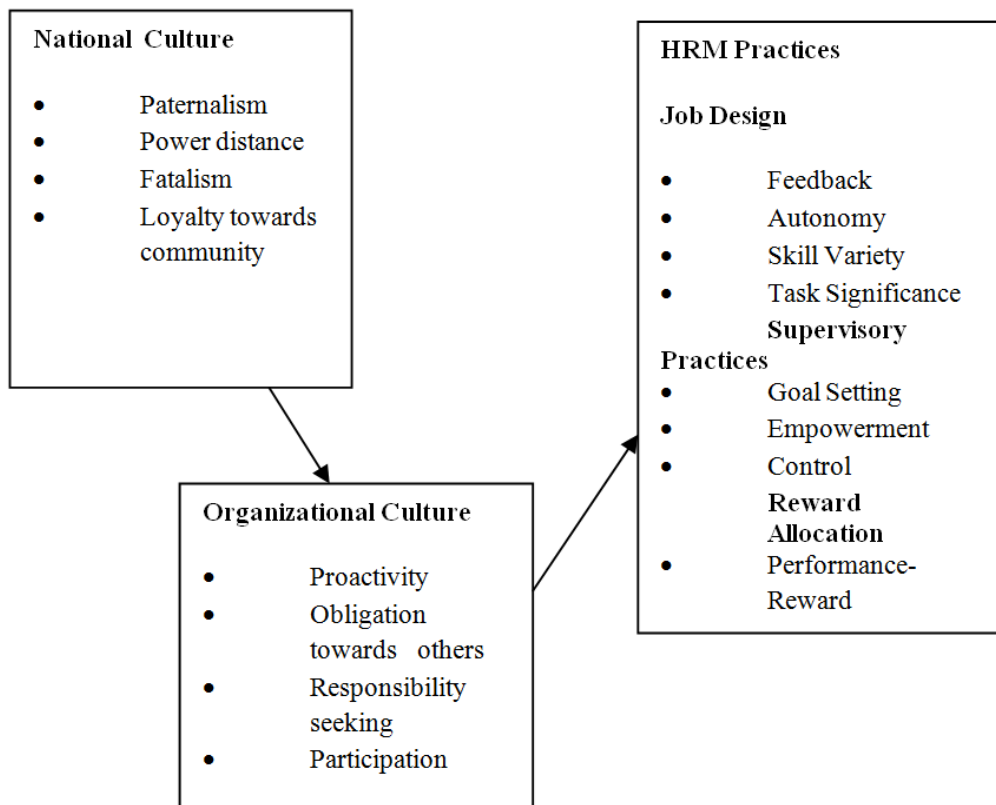


Figure1: The culture model fit (influenced by Ayman and Kanungo,2000)

The variable of national culture

Paternalism, describes the relationships between the people in a society. At what extent they feel close and how much supportive they are. (Ayman and Kanungo,1999;2000; Hofstede,1985;1998;1990;1994).

Power distance shows the inequality that characterizes a society and how much is accepted by its members (Hofstede, 1983;1980).

Fatalism describes the belief that "what is going to happen, will happen, no matter how hard he tries". This shows that it is impossible to control in total the outcomes of somebody's actions. Therefore, trying too hard to achieve a goal or making long term plans is not worthwhile, as cannot be safely forecasted the overcome, no matter somebody's efforts (Triandis, 1984; Hofstede, 1980).

The last dimension of **loyalty towards community** describes at what extent a person feels loyal to his community and feels oblige to fulfill his obligations towards the members of his group (as relatives, clan, organisations, etc.) (Aycan, 2000;1999).

The variable of organisational culture related to the national culture

Employees' beliefs about national culture affect their beliefs about organisational culture. The variable of organizational culture includes the dimensions of proactivity, obligation towards others, responsibility seeking and participation.

Proactivity, describes how much employees are willing to take decisions to achieve their job objectives. It is supposed that if employees perceive that their society is characterized by high power distance, then they may be more reactive than proactive. Thus, we hypothesize that:

Hypothesis 1: Employees' beliefs about paternalism and power distance are related negatively to their proactivity.

Obligation towards others, describes how much employees feel responsible to complete their tasks towards others in the company that they work (Aycan and Kanungo,2000). Loyalty towards community is as important as the obligation to one another in the society or in organisations in some cultures. Thus, we hypothesize that:

Hypothesis 2: Employees' beliefs about paternalism and loyalty towards community are related positively to their obligation to others in the workplace.

Responsibility seeking describes at what extent employees seek responsibility in their working place. It is possible that fatalism may has an effect on it (Aycan and Kanungo, 2000). In fatalistic cultures, people may not be willing to take more responsibilities, expecting that their extra effort will not necessarily bring the desired outcomes (as they believe that "what is going to happen will happen, no matter how hard they try"). Hence, we hypothesize that:

Hypothesis 3: Employees' beliefs about fatalism is related negatively to their responsibility seeking.

Participation, relates to whether or not employees prefer delegation at all levels and like to be consulted in matters that concern them. Both fatalism and paternalism are expected to influence the beliefs of employees' participation. Employees are willing to participate in decision making only when they believe that they can control matters (Aycan and Kanungo, 2000). Hence, we hypothesize that:

Hypothesis 4a: Employees' beliefs about fatalism is related negatively to their participation.

Though, paternalism seems to be positively related, as collaboration and support are main responsibilities of a paternalistic employee (Aycan and Kanungo, 2000). In this way, employees are willing to propose their opinions or solutions about issues that concern them. Consequently, we hypothesize that:

Hypothesis 4b: Employees' beliefs about paternalism is related positively to their participation.

The variable of organizational culture as they related to HRM practices

It's common knowledge that HRM practices is a significant tool that can be used from every firm to motivate and manage employees efficiently, in order to be satisfied with their working place and to feel part of the firm, so as to be willing to do the best they can to achieve the goals of the company. HRM practices are divided in : *job enrichment, empowering supervision and performance reward contingency* (Neelankavil and Marthur, 2000).

Job Design(Enrichment) is measured by the level of employees' feedback, autonomy, skill variety and task significance (Mendonca and Kanungo, 1994). **Empowering Supervision** is examined via the goal setting practices, empowerment practices and control (Erez and Gati, 2004).

Reward Management describes at what extent employees' rewards are contingent upon performance (Kanungo, 1987). Thus, we hypothesize that:

Hypothesis 5 a, b, c: Employees' proactivity is related positively to HRM practices (including job design, supervisory practices and reward allocation).

Furthermore, employees who are willing to collaborate with others at work, they also like to participate in affairs that concern them. It is more likely to practice empowering supervision (Conger and Kanungo, 1998; Huselid, 1995; Arthur, 1994). Hence, we hypothesize that:

Hypothesis 6: Employees' participation and obligation towards others are related positively to empowering supervision practices.

METHODOLOGY

A questionnaire survey took place in twelve companies which operate in different industries in Scandinavia (Norway, Sweden, Finland, Denmark) and Greece. The number of (252) employees including the HR and Economic managers, working in these companies, participated in this research. Precisely (126) employees worked at firms in Greece and (128) employees worked at firms in Scandinavia.

The questionnaire was available in Greek and English for Greek and Scandinavian participants respectively. There was no report of any difficulty in understanding the statements. The questionnaire was available online and it took about ten minutes to the participants to complete it. Moreover, they knew the process and the aims of this research and they were reassured for their anonymity.

The questionnaire consisted of (4) parts. The first part asked about demographic information, the second, the third and the fourth part assessed dimensions of the variables of national, organisational cultures and HRM practices. It included statements that respondents agreed with by using a seven-point Likert-type. Then SPSS was used to test hypotheses and correlations between the dimensions. Also, the reliability of the variables was tested (cronbach's alpha) and it was high.

RESULTS AND DISCUSSION

The table 1 presents the results of correlations between the variables in Greek and Nordic firms, which analyzed below.

Table 1: Correlations between the dimensions concerning firms in Greece (3) and Nordic countries (5)

Independent Variable(1)	Dependent Variable(2)	Direction of hypothesis	Pearson Correlation (3)	Pearson Correlation(4)
Paternalism. Power distance.	Proactivity.	H1 (-)partly confirmed	-0.038 0.199*	0.157* 0.240*
Paternalism. Loyalty toward community.	Obligation towards others	H2(+)partly confirmed	0.195* 0.141	0.237* 0.115
Fatalism.	Responsibility seeking.	H3 (-)partly confirmed	-0.375**	-0.1301
Fatalism.	Employees' participation.	H4a(-) not confirmed	-0.011	-0.1231
Paternalism.	Employees' participation.	H4b (+)partly confirmed	0.193*	0.098
Proactivity. Responsibility seeking.	Job design.	H5a (+)partly confirmed	- 0.066 0.125	0.299** 0.318**
Proactivity. Responsibility seeking.	Supervision. practices.	H5b (+)partly confirmed	0.007 0.405**	0.202* 0.278**
Proactivity. Responsibility seeking.	Reward allocation.	H5c (+)partly confirmed	0.021 0.411**	0.020 0.291**
Participation. Obligation towards Others.	Supervision. Practices.	H6 (+)confirmed	0.620** 0.282**	0.406** 0.358**

It seems that not all of our results were confirmed in both areas. The first hypothesis showed that power distance didn't inhibit proactive employee's behaviour. This may be explained that even if social inequality in Greece is accepted, this is to change slowly and influence organisational culture dimensions. Hence proactive employees' behaviors are considered more desirable and acceptable. On the other hand, power distance negatively related to employees' proactivity in Scandinavia.

Also, employees in Greek firms understood paternalism negatively as authoritism and not as a way to get managerial support to face their daily tasks. Though, in Scandinavia, it seems that paternalism is

perceived differently and more positive from the employees. This is also supported by Jones (2005) and Stavrou (2007).

Our second hypothesis was partly confirmed. For those who believe in loyalty towards others (Aycan and Kanungo, 2000; Hofstede, 1998), but the relationship is not significant, both in Greece and in Scandinavia. In other words, employees that are more loyal towards others do not necessarily tend to promote support and collaboration throughout their relationships with their colleagues. However, paternalism was found to maintain a positive and quite significant relation to employees' obligation towards others in both areas. It seems that employees who have adopted a paternalistic attitude are to be more willing to cooperate and support their colleagues in difficult situations. It is also referred by Schein (1978), Aycan and Kanungo (1999), Jones (2005) and Bruce (2011).

Our third hypothesis, showed that fatalism is related negatively to responsibility seeking, especially in Greece compared to Scandinavia. This happens because of the fatalistic nature of Greek culture which is characterized by the belief of "what is to happen, it will happen, no matter how hard they try. The result will remain the same".

Our fourth hypothesis, in these areas were also found to be different on how employees' beliefs about fatalism is related with their participation. However, paternalism positively but not significantly related to employees' participation. This relationship is stronger in Greece than in Scandinavia, as it is major of importance for employees, as it gives them the chance to become better. It is referred by Psychogios (2010), McGregor (1960), Cotton (1993) and Apospori (2008).

Our fifth hypothesis, proactivity negatively but not significantly related to job enrichment in Greece. Proactive organisational culture did not seem to enhance more reward practices. It seems that being proactive does not lead to high performance HRM practices. It is possible that proactivity is not a strong characteristic of organisational cultures in Greece, which needs to be examined further. However, this hypothesis was mostly confirmed in Scandinavia rather than in Greece as both proactivity and responsibility seeking were positively and strongly related to all HRM practices (Erez and Early, 1987; Conger and Kanungo, 1998).

The sixth hypothesis, confirmed that as much as employees' participation and employees' obligation towards others are enhanced, are more willing to enhance supervision practices to be improved. It is also referred by Conger and Kanungo (1998), Huselid (1995).

CONCLUSIONS AND IMPLICATIONS

Our research revealed differences between the countries because of the different perception that each society maintains and especially about fatalism, paternalism and proactivity. This specific dimensions should be examined in depth. However, these differences confirmed that national culture influences

organizational culture and the different impact that HRM practices accept in different areas. There are dimensions as power distance that influenced differently the behaviors of people in the society. Particularly, in Greek society was accepted and it was related positively to employees' proactivity, whereas in Scandinavian society wasn't accepted and it was related negatively to employees' proactivity. Hence, the different characteristics that the members of these societies presented, affected the way that they apprehended some dimensions. Consequently, the way that they behaved and the different HRM practices that should be implied to be efficient.

This research also presented practical implications for multinational companies, as the fact that our hypotheses are not fully supported may imply that those universally recognized "best practices" can be applied regardless of national culture constrains. For instance, proper job design drives employee satisfaction, that raises work efficiency. Empowering supervision also makes employees more effective in their job as they have the opportunity to feel trusted, they can propose their ideas, thoughts, worries and solutions to face daily work issues.

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EXPLANATORY STUDY OF METHODS IN SELECTING BUSINESS FOR TAX AUDITING APPLIED BY TAX ADMINISTRATIONS OF GREECE, EU COUNTRIES AND NON-EU COUNTRIES

Papapostolou, Menelaos; Mochidis, Odysseas

Department of Business Administration, University of Macedonia, Thessaloniki, Greece

ABSTRACT

As Greek Tax Administration struggle for gathering taxes and combating the tax evasion, a fair, efficient and effective model of risk analysis in selecting - ranking companies for tax auditing is crucial than ever. Today, the auditing department of Independent Authority for Public Revenues (IAPR) faces two serious problems. First, they are too many companies which have been chosen for auditing and second the current risk model does not be effective. Just in 2013, the Greek Independent Authority for Public Revenue (IARP) applied for the first time risk analysis in selecting companies for auditing; as a result the previous experience is extremely poor. This paper provides an extensive study on methods and criteria used by tax administrations in selecting business for tax auditing. We examine how other countries in European Union, in non EU countries and the USA have dealt with this problem. More precisely, how they choose companies for tax auditing in order to minimize tax evasion and on the other hand to maximize the collection of taxes. In addition, we explore the criteria used by the countries in selecting business for tax auditing.

Keywords: Tax evasion, Risk analysis, Selection, Criteria, Tax auditing, Public Revenues, Tax compliance, Tax administration

INTRODUCTION

Tax evasion is global, widespread and illegal activity that occurs in all economies including developed, undeveloped and developing countries. In the USA, according to the estimations conducted by Internal Revenue Service (IRS), from 2008 to 2010 tax evasion (or tax gap which is measured as the difference between the taxes that the tax administration should theoretically collect and the taxes that it really collected) cost to government US\$ 458 billion per year (IRS, 2016). In United Kingdom, HM Revenue and Customs estimates tax gap for the period 2014-2015 £ 36 billion, which is 6.5% of tax liabilities (HMRC, 2016). In Japan, the National Tax Agency reports that tax evasion was ¥16 billion in 2016 while in 2015 it was nearly ¥ 14 billion (NTA, 2017).

In the Europe, the shadow economy is estimated to be € 2.1 trillion for the year 2013, which is on average the 18.5% of Europe's Gross Domestic Product (GDP). More precisely, the five largest economies of Europe (Germany, UK, Italy, France, and Spain) are responsible for the two-thirds of the shadow economy. However, the shadow economy of the countries in Western Europe is smaller than that of countries in Eastern and Southern Europe. For example, shadow economy of Switzerland, Austria and Netherlands is estimated to be 7, 8, and 9 per cent of GDP respectively, while shadow economy of Italy, Poland and Bulgaria is 21, 24, and 31 per cent of GDP respectively (Kearney and Schneider, 2013).

Analyzing the extent of tax evasion in Greece, Artavanis, Morse and Tsourtsoura (2015) calculated that in 2009 the tax evasion from the income of self-employers was € 28.2 billion. In addition, by applying a 40% tax rate on missed income, they calculated that uncollected taxes from the income tax of the self-employed are estimated at € 11.2 billion. Consequently, by turning this amount in terms of GDP 2009, it is estimated that the income tax evasion from self-employment amounts to 4.7% of GDP.

Furthermore, Mylonas, Magginas and Pateli (2010) estimate that tax evasion from individual income (self-employed and employees) is approximately € 50 billion in 2008. Given this estimate, the total potential increase in individual income tax revenue is estimated at approximately € 9.5 billion (on an annual basis) taking into account 20% tax rate as a weighted average of implicit tax rates. From € 9.5 billion, it is calculated that the € 6.2 billion reflects tax evasion or revenue loss of 2.5% of GDP in 2008 terms and the remaining amount depicts tax benefits and tax exemptions. According to Leventi, Matsaganis and Flevotomou (2013), the average percentage of undeclared individual income for 2009 stands at 12.2% and this leads to losses in revenue from individual Income Tax by 29.7%. Taking into account that the revenue from individual Income Tax in 2009 amount € 10.8 billion and the potential revenue (real and lost) would be € 15.4 billion, the resulting tax evasion could be around € 4.5 billion or 1.9% of GDP in 2009 terms. Regardless of the differences in the methodology and the base year of the above studies, it could be concluded that the range of tax evasion from individual income is from about 1.9% to 4.7% of GDP.

Additionally, based on the report from the European Commission (2015) the VAT Gap as a percentage of the potential of maximum VAT revenues in Greece amounted to 34% in 2013 which accounts to € 6.5 billion. Assuming that the VAT deficit comes from tax evasion, the total lost VAT revenue amounted to 3.5% of GDP in terms of 2013. Moreover, the OECD report (2015) states that worldwide the tax evasion from the corporate income tax is from 4% to 10% of the total revenue from corporate income tax. Based on the above report and taking into account that in Greece the total

corporate income tax in 2014 was € 2.7 billion, the tax evasion from corporate income tax was € 110 - 270 million which amounts to 0.06-0.15% of GDP.

According to Association of Petroleum Trading Companies (2015), because of the smuggling in fuel, the tax evasion from the fuel excise income is estimated at € 180 million in 2014, which is to 0.1% of GDP in 2014 terms. Also, KPMG (2015) appreciate that the losses from cigarette excise, due to cigarette smuggling in 2014 were around € 520 million, which is approximately to 0.3% of GDP in terms of 2014. Last, Foundation for Economic & Industrial Research (2013) calculated that total losses revenues from smuggling in beverages reach around € 96.9 million per year, which is to 0.05% of GDP in terms 2012.

Composing and summarizing the above studies, it could be concluded that the total extent of tax evasion in Greece ranges from about 6% to 9% of GDP. That is consistent with recent studies which estimate that the shadow economy of Greece was 23.3 per cent of GDP in 2014, which is about € 43 billion (Mróz, Raczkowski and Schneider, 2015; Schneider, 2015). Applying an average tax rate of 28%, it is calculated that tax evasion is about € 12 billion or 6.5 % of GDP. Expressed as a percentage of total tax revenues in 2014, which was € 44.22 billion, tax evasion is 27.27% of total tax revenues (General Secretariat for Public Revenue, 2015).

These estimations cause much concern, since the problem of enormous tax evasion in Greece remains a major one despite any attempts to reduce it in the last decade. Tax evasion reduces public revenues that are valuable for the payment of state expenditure and for the encouragement of investments, while at the same time it increases the need for external borrowing. In addition, timeless evasion distorts the economy because it influences the disposable income and the decision for allocating it between consumption, savings and investment. Moreover, tax evasion causes social injustice, because people do not pay taxes according to their ability to pay. The reduction of tax evasion should be a priority For the Greece in order to achieve economic growth. For this purpose, the an effective selection of individuals or companies for tax auditing by tax authorities is crucial, because it not only raises the tax revenues but also improves the tax compliance.

The aim of this study is to review and find out the methods and the criteria- the key factors that are involved in process applied by tax administrations in choosing taxpayers for auditing. It examines, apart from Greece, how other countries in European Union, non EU countries and the USA have dealt with this problem. More precisely, how they choose companies for tax auditing in order to minimize tax evasion and on the other hand to maximize the collection of taxes. In addition, it explorew the criteria used by the countries in selecting business for tax auditing.

METHODS AND CRITERIA IN SELECTION FOR TAX AUDITING

There are generally three main methods that are used by tax authorities to select taxpayers for auditing. First, the manual screening is the oldest selection method that is applied by tax administration in case of poor IT department. It refers to the selection of companies by tax auditors manually rely on their experience and their insight of companies' profile and environment. Although, this method is based on local informal information and demands limited data processing, it raises the corruption, overestimates internal data in favor of external data and losses important factors of tax compliance due to unsystematic selection. Oppose to manual screening, the method of random selection gives all companies the same possibility to be audited. There is no bias in audit selection and it could be said that it gives the sense of fairness and eliminates the corruption. However, the method of random selection has a major disadvantage that is the high opportunity cost. In other words, this method does not focus on high risk companies and so it is less likely to increase tax revenue. Third, Risk - Based Audit Selection method gives tax administrations the opportunity to find out and to audit the taxpayers that they are most likely to tax evade, maximizing the tax revenues from audit fines and penalties. On the other hand, it demands a considerable amount of internal and external data, as well as developed IT Systems which process the above data (Awasthi, Khwaja and Loeprick, 2011).

In developed countries, tax authorities apply risk based - audit selection models because first it is not possible to audit every company and also it is useless to focus on cases with low-risk of tax evasion, which increases the opportunity cost. Risk based audit selection methods give tax administrations the chance to focus on high - risk cases of tax evasion, which potentially leads to increase of tax revenues. Through the introduction of risk management in auditing, tax administrations manage to assess the risk of tax evasion conducting by companies. By this process, they can prioritize the potential tax evaders and the workload of tax auditors. As a result, they can allocate effectively their resources into high - risk taxpayers. Finally, these methods record the auditing performance and the results of audits feedback the administration with insights in order to adjust its risk based model to be more efficient (Awasthi, Khwaja and Loeprick, 2011).

For assessing the risk, statistical methods are applied by tax authorities. More precisely, they construct usually models with a dependent variable which be continuous (for example the expected tax fines and penalties for a potential audit) or categorical (for example, audit or no audit) and with independent variables that affect the dependent variable such as total sales, sector of economy, size and employees. The statistical methods that calculate best the relationship between the dependent variable and the independent variables are divided into two categories. Parametric methods which calculate the parameters that gives the best relationship and nonparametric methods. In parametric methods, two techniques are applied: linear or logistic regression analysis and discriminant analysis.

The linear regression analysis is used to predict the risk when the dependent variable is continuous. On the other hand in case of dichotomous dependent variable, the logistic regression is used. When the dependent variable is categorical, it is used discriminant analysis which has the advantage that it defines the dependent variable directly as a score. In non-parametric techniques, data mining helps in finding out information and knowledge through the analyzing of mass data in order to extract patterns without taken in account a prior model with explanatory factors. Sometimes, a combination of the two categories could be used, which means that first data mining helps in drawing conclusions on taxpayer profiles and in finding out independent factors and then parametric methods help in predicting the risk and as well as in scoring the cases for auditing. Finally, the techniques of decision trees, neural networks and clustering are used for segmentation of taxpayer profiles and to find out groups that has homogeneity (Awasthi, Khwaja and Loeprick, 2011).

According to Micci-Barreca and Ramachandran (2004), an audit select model should include five sources of data for assessing the risk. The first source is business information for example the size, the type, the legal form of the business. The second and third source is the sales tax filings and other tax filings. The fourth source is the number of employees and the amount of wages. The fifth source refers to the previous audits of the business. It could be said that there are generally two kinds of source of data. The internal ones that come from the tax administration itself and refer both to business profile such as size, the type, and the legal form and to tax profile such as sales, profit/loss, late payments and returns. The external ones that come from third -parties such as foreign tax administrations, employment authorities, banks and complains.

Moreover, Jackson and Milliron (1986) proposed fourteen factors that are strongly relates with tax compliance. The proposed key factors are: age, gender, education and occupation status, sanctions and probability of detection, income level, income source, marginal tax rates, complexity, fairness, and revenue authority initiated contact, compliant peers and ethics or tax morale. Fischer, Mark and Wartick (1992) categorized these factors into 4 groups and developed their model called Fischer Model. The first group contains demographic variables that are age, gender and education. Generally speaking, young people are more possibly to evade because they are more risk takers, males are more likely to be less tax compliant than women and higher educated people are positively related with tax compliance. The second group includes noncompliance opportunities that are income level, income source and occupation. Almost all the tax theories argue that there is a positive relationship between tax income and tax evasion. In other words, when the tax income increases, the tax evasion increases as well and vice versa. The source of income is strongly connected with tax evasion, since for instance it is generally accepted that self-employed are not usually tax compliant. Similar, the kind of occupation affects the level of tax evasion. The third group contains attitudes and perceptions which

are linked with fairness of tax system and peer influence. If taxpayers do not believe that tax system is fair, tax noncompliance increases. Also, taxpayers are affected positively by peers (colleagues, relatives, and friends) who are not tax complaint. The fourth group refers to the structure of tax system which includes the factor of the complexity of tax system, the probability of detection and penalties and the tax rates. Complexity of tax system and high tax rates lead to tax noncompliance, on the other hand high possibilities for auditing in case of tax evasion and high penalties increases tax compliance.

Expanding the Fisher Model, Chau and Leung (2009) incorporate culture as another important environmental factor. Differed ethics and social norms influence differently the level of tax compliance. It is claimed that the differences between individualism and collectivism culture affect direct the culture of taxpayers and as a result the efforts of tax authorities for improving compliance. In the same vain, Lawan and Salisu (2017) modified the Fisher Model by adding the factor of Emotional intelligence. The taxpayers who lack of emotional intelligence are more likely to be non-compliant since they suppose that the tax authorities are ineffective, bad mannered, unable and unhelpful and so they are not willing to pay taxes. The emotions of taxpayers influence their level of tax compliance.

Another study that was conducted by Richardson (2006) shows that tax evasion is influenced mostly by non-economic factors. Analyzing the data of 45 countries, he concludes that the most influential factor of tax evasion is the complexity of tax system. Other essential factors are income source, education and the fairness of tax system. More precisely, he claims that low level of complexity of tax system and high level of education and fairness contributes to the reduction of tax evasion.

Based on practices of tax administrations, the Organization for Economic Co-operation and Development - OECD (2004) proposes a list of possible factors that are strongly related with the tax compliance. These factors are categorized in business profile (size, age, legal status, activities, and financial position), industry factors (size, competition level, and regulation), sociological factors (age, gender, and education), economic factors (tax rates, inflation, and tax system) and finally psychological factors (risk, fears, and fairness). All the above factors could be used as dependent variables of a risk model in choosing companies for tax auditing.

Furthermore, Gupta and Nagadevara (2007) define through the process of data mining, a set of possible variables for developing a model which calculates the risk of VAT returns in India. These variables divided into five categories: company profile, return compliance (nonfiling), returned values (turnover, gross profit), variations in returns across tax periods, Benchmarking returns of similar trade or industry. Another study that is conducted by Alm, Bahl and Murray (1993) estimates a model for

selecting individual taxpayers in Jamaica for auditing based on income tax and tax returns. They indicate that the possibility of tax evasion and its level are positively related with income and negatively related to payroll tax benefits.

In addition, Alm, Blackwell and McKee (2004) studied the retail sales tax audit selection of firms established in New Mexico State (USA). They introduced a set of factors that determines the chance a firm to be chosen for auditing which are Compliance Rate, Gross Receipts, Deductions, Service sector, Corporation, location, Firm age, Months Non filing. They conclude that companies which have great deductions, great variation in tax deductions, provide services, miss filling periods and are not located in the New Mexico State, are more likely to be selected for audit. Similarly, Murray (1995) examined the sales tax audit selection of firms established in the state of Tennessee by introducing gross sales, late returns filed, firm age, firm ownership, cooperate structure as determinants to estimate the possibility of a firm to be audited. He concluded that companies which report greater gross sales have smaller possibility to be audited, while companies, which report greater variations in gross sales, have higher possibility to be audited. Also, he supported that higher report of exempt sales, older firms and financial structure increase audit possibilities. Finally, he found strong evidence that the kind of industry plays a crucial role in the specification of audit election criteria.

At this point, it should be mentioned that tax administrations usually prefer to segment the taxpayers' population. This practice helps them to apply separated and targeted risk analysis methods on taxpayers with special characteristics, which could be more effective in reducing tax evasion. For instance, the determinants of risk analysis methods in choosing large businesses for auditing could be different of those for small and medium enterprises (SMEs). On one side, large businesses operate in a more complex and global environment which involves, foreign exchange transactions, diverse business activities, complex financial arrangements, cross-border trading, and transfer pricing issues. As a result, it is useful to estimate external risks coming from restructuring, complex legal status, mergers, financial structures, acquisitions and global and cross-border transactions. Other factors such as economic, tax compliance, taxpayer's behavior and kind of industry should also be taken into account. On the other hand, specific and separated risk analysis models should be applied on selecting small and medium enterprises for auditing which involve risk criteria such as the limit of registration in value added tax, the kind of book keeping, sectors of activities, cost ratios, previous tax behavior and deductions from total sales (Awasthi, Khwaja and Loeprick, 2011).

SELECTION METHODS AND CRITERIA IN GREECE

Until 2010, the Greek tax administration applied manual screening in selecting firms for tax auditing based mainly on the expiration time for auditing by tax authorities. For the first time in 2010, the article no 80 of the tax Law 3840 introduced risk analysis system in choosing firms for tax auditing. This article established a selection system for taxpayers to be audited based on the principles of risk analysis which includes qualitative characteristics as well as financial, spatial and time data. More precisely, the qualitative characteristics that could be taken into account by risk analysis system are the legal form, the category of the books, the branch or sector of activity depending on the risk of tax evasion, breaks in the tax and customs laws, data from intersections of information systems, or audits in others firms or third sources which reveal hide tax income and the whole financial profile of taxpayers. The financial factors that could affect the risk analysis process are total revenues, expenses, profits and losses, gross and net profit ratios, data from direct and indirect tax declarations, and data from other databases. Last, the geographical and time data could be the place of production, the way of products handling, seasonal activities and local specific features.

Based on the above Law, the decision of the Minister of Finance 1178/2011 defined a table of specific criteria for selecting cases for auditing and scoring them. In this table, each criterion has certain detailed rules which correspond to it, as well as each rule take a specific number of points. This table is consisted of 85 criteria and 423 factors which each gives a score. Analyzing the above table, it could be said that the 85 criteria could be grouped in six general categories: Previous tax and customs offenses, information from third parties that reveal undoubted and potential tax evasion, arrangement of tax obligations (tax and vat declaration, tax payments in time), financial profile (total sales, profit/loss, expenses, variations in financial figures), limitations in duration of auditing and real estate profile (submission of declaration, continuous changes in real state).

In 2013, the Law 4174 changed the framework of risk analysis method. According to article 26 of the above Law, priority audited cases are selected by decision of the Governor of the Independent Public Revenue Authority based on risk analysis criteria, internal and external sources of information or, exceptionally, other criteria set by the Governor of the Independent Authority Public Revenues and they are not published. This regulation specifies the duty of tax administration to control cases as a matter of priority by selecting them by risk analysis criteria from internal and external sources of information (data from credit institutions, etc.), utilizing by this way, a wider field of available information, with a view to increasing the effectiveness and the collectability of taxes coming from audits. Moreover, IPRS changes its philosophy and contrary to the previous regime, it does not publish the criteria of risk analysis method, because it supports that keeping risk criteria secret, taxpayers will not adjust its behavior according to the risk criteria and so tax evasion is avoided.

However, the publication of a general risk approach and cross – checks with banks or insurances sometimes can be used as an obstacle to tax evaders.

Another crucial limitation that is introduced by the Law 4174/2013 is that for audits carried out as of 1 January 2018, 75% of them are in principle audits over the last three years. These audits may be extended to the two preceding, beyond the last three years, tax years, on the basis of the risk criteria. This limitation set out a more rational basis for tax auditing. In particular, the auditing focuses primarily on the three most recent fiscal years and only if there are specific reasons, determined on the basis of risk analysis criteria, internal or external sources or other criteria which are not disclosed, is extended in two previous tax years. In this way, tax auditing becomes more efficient and effective, as it is now directed where there is real tax interest. This approach makes the audit more flexible and allows it to focus to recent years for which it is easier to search for data and information which could improve the outcome of tax audits and as well as the collection of taxes. This regulation changes the approach of Greek tax administration to the selection of firms for auditing which was based mainly on the expiration time for auditing by tax authorities (5, 10 or 15 years ago), which has led to plenty of ineffective audits.

SELECTIONS METHODS AND CRITERIA IN EU AND NON EU COUNTRIES

In this section, risk criteria that are applied by tax administrations of certain EU and non EU countries are presented. It should be mentioned that the sources of Knowledge are limited, as most tax administrations, like Greek one, prefer to keep criteria secret. Dutch Tax and Customs Administration (DTCA) collects and processes data from many kinds of sources at central level. The information are gathered from tax returns, taxpayer behavior, the level of compliance such as paying on time, declaring tax liabilities correctly and filing tax returns on time. It could be said that the above information is referred to the taxpayer data. Moreover, the information are gathered from third-parties and the sector that the firm belongs to such as real estate and bank transactions, wages, other public authorities (i.e. insurance), as well as national compliance surveys and risk data from regional tax offices. Besides risk based audit selection method, Dutch Tax and Customs Administration selects randomly 15 percent of total firms which are to be audited, since this random selection helps in understanding the taxpayer behavior more clearly. Each year, Dutch Tax and Customs Administration audits nearly 4,000 businesses. The audit results are analyzed first for estimating the effectiveness of applied risk model and second for improving and adjusting it, by introducing new risks or new target groups. In the United Kingdom, the tax agency, that is called Her Majesty's Revenue and Customs (HMRC), collects data vastly from third-parties, international, commercial and voluntary sources. By analyzing the above information, it draws risk indicators which lead to trends and behaviors. A

sophisticated software program is used to analyze the information in order to determine the risks, to draw risk taxpayer profiles and to prioritize the audit cases. The software combines 23 sources and 81 documents which account for more than 800,000 records (Awasthi, Khwaja and Loeprick, 2011).

In 1998, Italy applied a risk analysis method in selecting SMEs for auditing based on a reference revenue level which is estimated from the reports of companies with same economic indicators. This method calculates the level of sales for each taxpayer according to the weighted average of certain variables. In particular, first data are gathered from all enterprises (self-employed, single entrepreneurs, corporations) that have similar code of activities and annual total sales under 5,164,569 euros. Also, data contains structural variables such as number of employees, type of customers, surface area of warehouses and offices, as well as accounting variables which are mainly related with costs. Then, Principal components analysis is implemented for choosing the variables that are most statistically significant. These selected variables form the clusters and all firms that belong to the same cluster have homogeneity. If the reported total sales of the firm are below the estimated total sales by tax administration, the firm has the option to report the higher estimated value in his tax declaration. If the firm rejects this alternative, it is more likely to be audited. At this point, it should be mentioned that the estimated level of total sales are derived from the reported values of a set of independent variables that are related with total sales (relevant independent variables) and the average relation between relevant independent variables and total sales for a subset of companies which are in the cluster and satisfy a certain criterion. The criterion is calculated by indicators such as inventory turnover and asset to sales ratio. Finally, the above system can execute another audit. A firm is likely to be audited when its reported values are not closed to those of other firms in the group (Arachi and Santoro, 2007).

In the same way, Australia has constructed reference indicators for 58 clusters based on internal data which comes from the tax return and financial statements of the business and on external data which derives from the sector of the industry. These reference indicators include important financial ratios such as the labor costs to total sales, the cost of goods sold to total sales, and the rent to total sales. In Austria, estimated expense ratios have been calculated for 54 segments of SMEs. For example, for agents the expense ratio is 12 percent of total sales and for agriculturists it is 20 - 70 per cent of total sales. In addition these ratios could be used as risk benchmarks and so the firms which reports higher expenses ratio than the estimated ratio are more likely to be audited.

The National Revenue Agency (NRA) of Bulgaria takes into account both internal and external information for selecting businesses to be audited. Internal information contains tax returns, purchases, registrations, tax and social security accounts, individual registration under VAT benchmark, information for the taxpayer behavior based on prior tax audits and results. Also, the

National Revenue Agency of Bulgaria uses external information such as bank accounts and data from social insurance. More precisely, it combines both general and specific criteria. On one hand, general criteria are implied to all taxpayers and that process feeds tax administration with background knowledge of taxpayer behavior and its level of tax compliance and on other hand specific criteria categorize taxpayers into five groups based on tax status, VAT registration, tax and legal status, social security or self-employment status and whether an individual or a company. For instance, risk criteria includes large amounts of taxes that are not paid, no tax audit for a long period with large total sales, offences from prior tax audits, differences between annual total sales and financial statements, VAT transactions with high risk suppliers, low VAT payments in relation to total sales and background of tax evasion. Moreover, the Bulgarian tax administration applies additional risk analysis criteria on taxpayers who claim VAT refund and their total exports and intra-community (EU) transactions are higher than 30 percent of their total sales. These additional criteria are the amount of the refundable VAT, the ratio of domestic sales to exports, high deviations in the monthly exports and in the declared refundable VAT, transactions with high risk taxpayers and the ratio of fixed assets to the amount of the declared refundable VAT.

Finally, a point system is used for each taxpayer that should be audited for prioritizing the audits (Awasthi, Khwaja and Loeprick, 2011).

In Turkey, tax authorities receive information from three mainly sources which is the revenue administration (internal data), public and private organizations (external data) for risk analysis and scoring. In particular, Turkish tax administration gathers information from declarations, registrations, debt tax notices, company ownerships and partnerships, prior audits and late tax payments. Many public agencies provide tax administration with information related to business activities such as Central Bank, Customs Administration, Land Registry, Post Office and the Agency of Motor Vehicles. Similarly, private organizations provide information such as banks, insurance companies, financial and leasing companies. The above data are analyzed in order to formulate taxpayer's profile and to estimate a risk score which helps to define the taxpayers of high risk to be audited. Like Bulgarian tax administration, Turkish tax agency poses additional risk criteria in cases of VAT refunds. The system receives data from four sources which are the VAT return, a list of suppliers, a list of customs declarations, and a list of export invoices. Moreover, VAT risk model uses information from the Ba and Bs forms which should be filled out by the firms. Ba and Bs forms record the purchases and sales respectively of the firms that belong to VAT regime. The analysis of this information is important as it enables tax administration to find out all the suppliers that take part in the supply chain and because generally fake companies disappear, after issuing false invoices (Awasthi, Khwaja and Loeprick, 2011).

Last, Ukraine tax agency collects data from many sources at both local and central level as well as from third parties. Data that are gathered internally are from registration information, declarations, tax payments and liabilities, tax benefits, outcome of prior audits and foreign transactions (imports and exports). Also, risk analysis is based on the information which comes from other public agencies such as Customs Agency and the Stock Market as well as from internet. Analyzing these data, tax administration formulates the risk criteria for tax auditing. In particular, 32 risk criteria are applied in the selected target group of taxpayers. The 32 risk criteria are ground on ratios and turnover standards related to the industry that the target group belongs to. These risk criteria are if higher sales and income leads to higher tax paid, if tax paid is lower than the average of the industry, low tax liabilities and high tax credits, continuous claim of large amount of VAT refund and reported expenses almost equal to tax income. Some examples of information gathered from other government agencies which are taking into account in risk analysis are reports for potential money laundering from the Financial Committee and reports for not paying insurance contributions from the public insurance agency (Awasthi, Khwaja and Loeprick, 2011).

SELECTION METHODS AND CRITERIA IN USA

Although the USA Tax administration, the Internal Revenue Service (IRS), does not disclose the criteria of its risk based audit system in selecting taxpayers for auditing due to confidential reasons, a briefly description of its selection method is delivered putting emphasis on the sources of data that are used. It should be said that USA taxpayers are informed for the use of this risk method for audit selection, but they do not know the exact determinant of the model. The IRS uses descriptive analysis which was first introduced in 1969. More precisely, a discriminant function (DIF) estimates for all tax returns two scores. One for if a tax return is to be audited or not and the other for if the tax return is accurate or not. If the score is high, the possibility of misstatement and of being selected for auditing is higher. The IRS defines the discriminant function through a sample of tax returns that secures its accuracy. Moreover, IRS measures the tax compliance in terms of payments, filing and reporting. In particular, payment compliance is the level of tax liabilities that are reported and are paid in time, filing compliance is ratio of filed tax returns in time to the required tax returns and lastly reporting compliance is the level of reporting tax liabilities accurate in time (Torrey, 2008).

The IRS gathers information from the taxpayers themselves through their declared tax returns. Also it collects information from third party sources in order to matching the information declared by the submission of the tax return and to draw taxpayers' profiles. Except for the usual third parties source data such as banks and public insurance, IRS uses information from internet and social media (Facebook, Tweeter, Instagram) as potential sources for taxpayer behavior. Analyzing the

above data, it identifies tax misstatements, draw taxpayers profiles and segment target groups which may be noncompliant (Houser and Sanders, 2017). Furthermore, IRS uses another risk analysis model for assessing the possibility of tax returns to have unreported income. The Unreported Income Discriminant Function (UIDIF) take into accounts deferent determinants from the above DIF system and estimates score on the basis of expense and income ratio. The main concept is if a taxpayer spends more money than he earns, it is likely to hide income and so to tax evade (Torrey, 2008). It should be mentioned that the IRS analyzes the data and the results for three years, because it can audit taxpayers only for three years. Consequently, after the end of the three years the data is useless. Finally, the IRS keeps the determinants of DIF and UIDIF Discriminant Function secret for avoiding taxpayer's actions on purpose of deceiving the system in order to reduce the chance to be audited.

CONCLUSIONS

The aim of this paper is to study and to find out the methods and the criteria- key factors that are involved in process applied by tax administrations in choosing taxpayers for auditing. First, from the above analysis, it is concluded that the tax administration of developed countries use both internal and external data in choosing taxpayers for tax auditing. Internal data are coming mainly from tax declaration, tax profile and behavior of taxpayers and formulate criteria, such as income, sales, payments on time, while external data are gathered from third parties and formulate criteria such as balance of bank accounts and insurance contributions.

All the above mass data should be processed by risk based - audit selection models because first it is not possible to audit every company and also it is useless to focus on cases with low-risk of tax evasion, which increases the opportunity cost. Risk based audit selection methods give tax administrations the chance to focus on high – risk cases of tax evasion, which potentially leads to increase of tax revenues. As a result, they can allocate effectively their resources into high - risk taxpayers. Finally, these methods record the auditing performance and the results of audits feedback the tax administration with insights in order to adjust its risk based model to be more efficient.

Finally, this study could be a knowledge tank of methods and criteria applied by tax administrations in tax auditing and so it could contribute to a further and certain research for specifying new ones or improving the existing methods, as well as finding effective criteria in choosing taxpayers for auditing, applied by a certain tax administration, for example by Greek Independent Authority for Public Revenue. The results of the study could contribute to the literature by adding knowledge to the international research on risk analysis in tax auditing and on tax compliance.

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COMPASSIONATE LOVE IN LEADERS AND TEAM PERFORMANCE

Rego, Arménio¹; Simpson, Ace Volkmann²; Cunha, Miguel Pina³; Oliveira, Eduardo⁴

¹Católica Porto Business School, and BRU, Instituto Universitário de Lisboa (ISCTE-IUL), Lisboa, Portugal

²Brunel Business School, Brunel University London, London, UK

³Nova School of Business and Economics, Universidade Nova de Lisboa, Lisboa, Portugal

⁴Faculdade de Economia, Universidade do Porto, Porto, Portugal

ABSTRACT

Purpose – This study investigates how compassionate love in leaders predicts team performance through, serially, the leader's noncalculative motivation to lead, the leader's coaching behaviors, and team psychological safety.

Method – Data were collected from a sample of 128 leaders, who rated team in-role and extra-role performance and were rated by 628 subordinates and 1048 peers.

Findings – The findings provide empirical support for and expands the distal-proximal model of motivation and leadership (Badura *et al.*, 2020), in suggesting that compassionate leaders, by being noncalculatively motivated, adopt coaching behaviors aimed at developing their teams, making the team more psychologically safe and consequently more effective.

Research limitations – Other causalities are possible, moderators are not included, and our measures are limited in terms of content validity.

Practical implications – The study suggests that compassionate love in leaders must be encouraged because, besides being virtuous, it has a positive impact on team performance.

Originality/value – While the literature has focused mainly on how compassion at work alleviates pain and suffering, we show that compassionate love in leaders also matters for important team outcomes unrelated (at least not directly) to team member suffering, including team performance.

Keywords: compassionate love in leaders; non-calculative motivation to lead; supportive coaching behaviors; team psychological safety; team performance

INTRODUCTION

A leader's compassion amidst painful events facilitates broader organization level compassion (Dutton *et al.*, 2014), resulting in positive individual and organizational benefits (e.g., enhanced healing, trust, engagement, and performance; Simpson *et al.*, 2020; Worline and Dutton, 2017). A limitation of existing studies is the minimal attention paid to subordinate reactions to compassionate leadership outside of contexts of suffering. While "there is always pain in the room", as Peter Frost (in

Dutton *et al.*, 2014, p. 298) noted, there are also always employees in need of support in pursuing their goals and dealing with routine work situations that cause everyday anxieties, tensions, and struggles. Compassionate leaders also respond to these needs (Boyatzis *et al.*, 2006). Moreover, a leader's compassion does not only elicit compassionate employee responses. For example, a compassionate leader helping team members through a challenging project may elicit higher team member engagement and performance (Lilius *et al.*, 2008).

This study proposes and tests a non-compassionate although communal path in which a leader's compassionate love translates, indirectly, into greater team performance (Fig. 1). By compassionate love we refer to an enduring attitude that involves "caring, concern, tenderness, and an orientation toward supporting, helping, and understanding the other(s)" (Sprecher and Fehr, 2005, p. 630). We argue that compassionate love in leaders enhances their motivation to lead with a noncalculative, selfless, and communal orientation (Badura *et al.*, 2020; Dutton and Workman, 2011). This prosocial motivation encourages these leaders to adopt more supportive coaching behaviors aimed at facilitating team development (Maamari *et al.*, 2021; Morgeson *et al.*, 2010). These coaching behaviors inform team members' sensemaking about the kind of leader they have and the kind of team they belong to (Lilius *et al.*, 2008), fostering team psychological safety (the "shared belief by team members that the team is safe for interpersonal risk-taking"; Edmondson, 1999, p. 354), which in turn fosters greater team performance (Edmondson and Lei, 2014). Our model draws on and expands the distal-proximal model of motivation and leadership proposed by Badura *et al.* (2020). The model suggests that deep-level characteristics (e.g., leader traits) are distal antecedents that affect leader effectiveness through, sequentially, the motivation to lead and leadership behaviors. We consider that compassionate love in leaders is an individual characteristic (i.e., a distal antecedent) with strong communal content that fosters a noncalculative motivation to lead (i.e., a proximal antecedent), thereby encouraging the leader's adoption of supportive coaching behaviors. These behaviors, in turn, foster team psychological safety and greater team in-role and extra-role performance, which are components, or indicators, of leadership effectiveness (DeRue *et al.*, 2011).

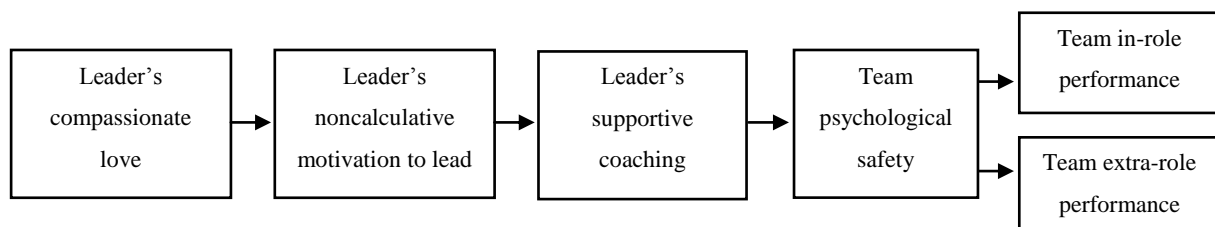


Figure 1. *Hypothesized model*

The study makes several contributions. First, we show that compassionate love in leaders matters for important team outcomes unrelated (at least not directly) to team member suffering,

including team performance. Second, we provide empirical support for the distal-proximal model of motivation and leadership (Badura *et al.*, 2020), while also suggesting that such a model could include team emergent states between leadership behaviors and leader effectiveness (Mathieu *et al.*, 2019). Third, we enrich the literature on the antecedents of team psychological safety, an important endeavor considering the positive impact of such a team's emergent state on several team outcomes, including team learning and team performance (Edmondson and Lei, 2014).

THEORY AND HYPOTHESES

In line with Sprecher and Fehr (2005, p. 630), we define compassionate love as “an attitude toward other(s), either close others or strangers or all of humanity; containing feelings, cognitions, and behaviors that are focused on caring, concern, tenderness, and an orientation toward supporting, helping, and understanding the other(s), particularly when the other(s) is (are) perceived to be suffering or in need”. Accordingly, we treat compassion in leaders as compassionate love, defining it as an enduring attitude or dispositional variable, as per the Sprecher and Fehr (2005) definition presented above. Compassionate love is not necessarily triggered as a response to other's suffering. Rather it is about acting for the follower's benefit (Boyatzis *et al.*, 2006). We therefore consider that a leader's compassion motivates him/her leading with a noncalculative stance, adopting supportive coaching behaviors as an outcome of such motivation. Team members respond to a compassionate leader's coaching behaviors with a greater sense of psychological safety, making the team more effective. To substantiate our hypothesized model, we resort mainly to the distal-proximal model of motivation and leadership.

Distal-proximal model of motivation and leadership

The distal-proximal model of motivation and leadership integrates two theoretical approaches: (a) DeRue *et al.*'s (2011) integrative trait-behavioral model of leadership effectiveness, and (b) Kanfer's (1992) distal-proximal framework of motivation. The model suggests that a leader's personality indirectly impacts leadership behaviors and leadership effectiveness via a set of more proximal motivational mechanisms, including the motivation to lead (MTL). The distal-proximal model of motivation and leadership therefore considers that MTL is a mechanism through which leader characteristics relate to leadership behaviors and, consequently, leadership effectiveness.

Motivation to lead

MTL is an individual characteristic representing the desire to assume leadership training, roles, and responsibilities, as well as expend persistent efforts to fulfill leader role requirements (Chan and Drasgow, 2001). Three types of MTL have been considered. Affective-identity MTL represents the desire to lead because the individual enjoys leading or seeing her/himself as a leader. Social-normative

MTL is the individual's desire to lead out of a sense of duty, responsibility or obligation to his/her organization. Noncalculative MTL represents the extent to which the individual views leadership opportunities positively despite incurring in potential costs and/or enjoying only minimal personal benefits. Noncalculative MTL is therefore communal in nature (Badura *et al.*, 2020), representing the MTL for non-selfish, altruistic reasons.

Compassionate love and noncalculative MTL

The distal-proximal model of motivation and leadership considers that the three MTL components operate as mediators between a leader's individual characteristics and leadership outcomes. However, the model also suggests that the nomological network for each MTL component is distinctive, mainly regarding the respective antecedents. Specifically, Badura *et al.* (2020) showed that, in general, (a) the affective-identity MTL reflects a greater agentic orientation, (b) the social-normative MTL reflects a dual focus toward agency and communion, and (c) noncalculative MTL reflects a greater communal orientation. Accordingly, we selected the noncalculative MTL as the relevant mediator. A compassionate leader, by prioritizing responsiveness to team members' needs and showing concern for their well-being, approaches interpersonal situations with affiliative goals and a communal relational orientation (Cosley *et al.*, 2010). This communal orientation makes the leader more motivated to lead for noncalculative reasons (Badura *et al.*, 2020). Hence:

H1. Compassionate love in leaders relates positively with their noncalculative MTL

Noncalculative MTL and supportive coaching behaviors

Leaders with a noncalculative MTL are motivated to observe and address team member needs (Le *et al.*, 2013). One path through which leaders help team members is by adopting supportive coaching behaviors, such as helping them learn new skills to carry out specialized tasks, and to learn from past experiences (Morgeson *et al.*, 2010), including personal mistakes (Edmondson, 1999). In short, supportive coaching behaviors are a pathway through which leaders demonstrate compassion for team members (Boyatzis *et al.*, 2006), via selfless noncalculative MTL. Hence:

H2. A leader's noncalculative MTL is positively associated with their coaching behaviors

Supportive coaching behaviors and team psychological safety

While the distal-proximal model of motivation and leadership (Badura *et al.*, 2020) associates leadership behaviors directly with leader effectiveness, we posit that, at least when leadership effectiveness is conceptualized as team performance (DeRue *et al.*, 2011), such an association is indirect, through the emergent state of team psychological safety (Mathieu *et al.*, 2019). Team psychological safety, representing an emergent state that captures the relative absence of interpersonal threat and risks, is an important outcome of team leader behaviors (Edmondson and Lei, 2014), with

the literature suggesting a positive relationship between supportive coaching behaviors and team psychological safety (Edmondson, 1999).

Two main reasons explain such a relationship. First, supportive coaching behaviors adopted by a compassionate leader improve the quality of the relationship between the leader and team members, shaping team members' sensemaking concerning the kind of leader they have (Lilius *et al.*, 2008). A leader's supportive coaching behaviors signal the leader's openness to team members' ideas and that he/she values members as human beings, not merely as means for reaching goals. In such a context, expressing and sharing problems, difficulties, and struggles is seen as acceptable, communicating that it is OK to "put one's humanity on display" (Dutton *et al.*, 2014, p. 290). Team members feel safe acknowledging personal mistakes and failures (Edmondson and Lei, 2014). Second, social learning theory suggests that compassionate leaders, as role models, influence the likelihood of team members expressing compassion toward their colleagues (Kanov *et al.*, 2016), creating an environment of high team psychological safety (Dutton *et al.*, 2014). Hence:

H3. A leader's coaching behaviors relate positively with team psychological safety.

Team psychological safety and team performance

Psychologically safe teams tend to demonstrate greater team performance (Edmondson and Lei, 2014). We next discuss how, drawing on explanations of heightened team in-role performance (i.e., the extent to which the team produces the intended results) and team extra-role performance (i.e., conscientiousness and helping behaviors). Team psychological safety leads to greater team in-role performance because a safe context operates as a social lubricant for team processes, facilitating the emergence of effective solutions for dealing with problems and opportunities. In such a safe context, diverse ideas, information, and knowledge are more likely to be shared. By discussing and sharing practices, new knowledge is created and better decisions are made (Edmondson, 1999). In these teams, failures and mistakes are treated as learning opportunities that improve processes, decisions and adaptability, all elements that make the team more effective (Edmondson and Lei, 2014). Team psychological safety is also associated with team extra-role performance as the former informs team members' prosocial nature (Stoverink *et al.*, 2018), making team members feel safe to seek help without being mocked or put down, and to help others without fear of being defensively rejected. In such a climate, others respond to requests for support by helping. Conscientious behaviors toward the team are also more likely because, where trust and mutual respect emerge as a prosocial norm, team members reciprocate by adopting behaviors that benefit the team. Hence:

H4. Team psychological safety associates positively with greater (4a) team in-role and (4b) extra-role performance.

The serial effects

Compassionate leaders have a communal relational orientation and a prosocial identity that encourages them to adopt supportive coaching behaviors. These behaviors are team inputs that affect team performance through team psychological safety. A psychologically safe team climate enables team members “to take proactive learning-oriented action, which in turn fosters effective performance.” (Edmondson, 1999, p. 377). Hence:

H5. Compassionate love in leaders is associated with team in-role (H5a) and extra-role performance (H5b) through, sequentially, the leader’s noncalculative MTL, (b) the leader’s supportive coaching behaviors, and (c) team psychological safety.

METHOD

Our sample comprises 128 mid-level and top managers (42.2% females; mean age: 39.25 years, SD: 6.76) who participated in a leadership development program at a European business school. The program involved a 360-degree feedback exercise in which the variables of our study were included. Only data from managers rated by at least two subordinates and two peers were included. In total, 628 subordinates (average: 4.91 per leader) and 1048 peers subordinates (average: 8.21 per leader) participated as raters. The following procedures were adopted to minimize the risks of common method bias. First, team performance was measured by the team leader. Second, we considered compassionate love as a facet of the leader’s outer personality (Connelly and Hülshager, 2012), and measured that variable with data from peers. The leader’s MTL was also measured with data from peers who have many opportunities to observe if and why other managers are motivated or willing to accept leadership roles. We randomly split the sample of peers in two subsamples and used one subsample to measure compassionate love and the other to measure MTL. Third, coaching behaviors and team psychological safety were measured with data from subordinates. We randomly split the sample of subordinates in two subsamples, using one subsample to measure supportive coaching behaviors team and the other to measure psychological safety.

Measures

A six-point response format was used to measure all variables. *Compassionate love* ($\alpha = .85$) was measured with three items adopted from Shiota *et al.* (2006; sample item: “When [name of the target manager] sees someone hurt or in need, he/she feels a powerful urge to take care of them”). The three facets of MTL were measured with nine items adapted from Chan and Drasgow (2001). *Non-calculative MTL* ($\alpha = .82$) was measured through three items (sample item: “[Name of the target manager] is willing to lead others even if there are no special rewards or benefits with that role”). *Affective MTL* ($\alpha = .79$) was measured through three items (sample item: “[Name of the target manager] is the type of person who likes to be in charge of others”). *Social-normative MTL* ($\alpha = .603$) was measured through

three items (sample item: “[Name of the target manager] agrees to lead whenever he/she is asked or nominated by other team members”). *Supportive coaching behaviors* ($\alpha = .88$) were measured through three items adapted from Morgeson *et al.* (2010; sample item: “[Name of the target manager] helps the team learn from past events or experiences”). *Team psychological safety* ($\alpha = .77$) was measured with four items adapted from Edmondson (1999; sample item: “Team members feel that it is safe to take a risk on this team”). *In-role performance* ($\alpha = .86$) was measured with three items adapted from Schaubroeck *et al.* (2007; sample item: “This team gets its work done very effectively”). *Extra-role performance* ($\alpha = .73$) was measured with four items adapted from Ehrhart (2004; sample item: “team members willingly help others who have work-related problems”).

Several variables were included for control. *Affective MTL* and *social-normative MTL* were included (see above) because they are the other components of MTL and influence leaders’ behaviors and effectiveness (Badura *et al.*, 2020). *Self-reported self-efficacy* ($\alpha = .62$) was included because individuals with higher self-efficacy are more motivated to lead (Badura *et al.*, 2020). This variable was measured with three items from Luthans *et al.* (2015; sample item: “I feel confident contributing to discussions about the company's strategy”). *Gender* was included because females tend to be more compassionate (Sprecher and Fehr, 2005) and more noncalculatively motivated to lead (Badura *et al.*, 2020). *Leader experience* and *education* were included as these variables relate to MTL (Badura *et al.*, 2020). *Hierarchical level* (mid-level manager vs. top manager) was included because it informs job content and the competencies influencing leadership effectiveness.

Aggregating data

ICC(1) are .13 for compassionate love and noncalculative MTL (medium effect; LeBreton and Senter, 2008), .35 for affective-identity MTL (large), .11 for social-normative MTL (medium), and .22 for coaching behaviors and psychological safety (medium-large). ICC(2) are .57, .53, .83, .50, .58, and .58, respectively for compassionate love, noncalculative MTL, affective-identity MTL, social-normative MTL, coaching behaviors, and psychological safety. r_{wg} values (uniform distribution) are .79, .70, .82, .87, .83, and .83, also respectively, representing moderate-strong (.70) and strong interrater agreement (LeBreton and Senter, 2008). Although the ICC(2) for some variables is below .60, this value does not prevent aggregation if aggregation is theoretically justified and r_{wg} is high. We thus proceeded with aggregated data for the two variables.

Discriminant analysis

We first compared (confirmatory factor analysis) the three-dimensional model of MTL with alternative models. The 3-factor model fits the data reasonably well (RMSEA: .096; GFI and CFI: .92; IFI: .93) and better than the alternative models. Next, we tested the 9-factor model (the six variables included in our hypothesized model plus self-efficacy, affective MTL and social-normative MTL),

which fits the data well (RMSEA: .05; GFI: .81; CFI and IFI: .92) and better than the following models: (a) in-role and extra-role performance merged ($\Delta\chi^2_{[8]} = 36.42, p < .001$); (b) the three variables measured by the leader, merged ($\Delta\chi^2_{[15]} = 82.54, p < .001$); (c) the three dimensions of MTL merged ($\Delta\chi^2_{[15]} = 206.24, p < .001$); (d) variables measured by the followers merged ($\Delta\chi^2_{[8]} = 143.61, p < .001$); (e) the six variables of the hypothesized model merged ($\Delta\chi^2_{[30]} = 753.75, p < .001$), and (f) all variables merged ($\Delta\chi^2_{[36]} = 1031.44, p < .001$).

RESULTS

A leader's compassionate love correlates positively with noncalculative MTL, supportive coaching behaviors, and team psychological safety (Table 1; control variables not shown, their effects shown on Table 2). A leader's noncalculative MTL correlates positively with coaching behaviors, which in turn correlates positively with team psychological safety. The two dimensions of team performance intercorrelate positively and are positively correlated with team psychological safety.

	M	SD	1	2	3	4	5
1. Leader's compassionate love	4.74	.53	-				
2. Leader's noncalculative MTL	4.56	.68	.40***	-			
3. Leader's coaching behaviors	5.07	.61	.22*	.19*	-		
4. Team psychological safety	4.83	.67	.38***	.16	.27**	-	
5. Team in-role performance	4.92	.59	.12	.05	.09	.28***	-
6. Team extra-role performance	4.70	.55	.11	.03	.10	.28***	.56***

Table 1. Means, standard deviations and correlations

Notes: $N = 106$ leaders; * $p < .05$, ** $p < .01$, *** $p < .001$; ^a 0: female, 1: male; ^b 1: without degree, 2: degree, 3: degree plus post-graduation, 4: Masters, 5: PhD; ^c 0: midlevel management, 1: top management

To test the full hypothesized model, a bias-corrected bootstrap analysis (PROCESS macro; model #6; 5000 samples; Hayes, 2018) was used (Table 2). Leader's compassionate love predicts a leader's non-calculative MTL (H1 supported), leader's non-calculative MTL predicts leader's coaching behaviors (H2 supported), these behaviors predict psychological safety (H3 supported), which in turn predicts the two facets of team performance (H4a and H4b supported). In predicting in-role performance, while the direct effect is not significant, the total indirect effect (effect: .19, SE: 0.08, LLCI: .06, ULCI: .36) and the hypothesized serial model (effect: 0.01, SE: .01, LLCI: .001, ULCI: .02) are (H5a supported). For extra-role performance, while the direct effect is not significant, the total indirect effect

(effect: .17, SE: .06, LLCI: .06, ULCI: .30) and the hypothesized serial model (effect: 0.01, SE: 0.005, LLCI: 0.001, ULCI: 0.02) are (H5b supported). The path compassionate love → psychological safety → in-role performance (effect: .13, SE: .05, LLCI: .04, ULCI: .23) and the path compassionate love → psychological safety → extra-role performance (effect: .16, SE: .06, LLCI: .05, ULCI: .29) are also significant. Therefore, leader's compassionate love influences psychological safety not only indirectly (as hypothesized) but also directly.

Variables	Outcome: MTL B (SE)	non-calculative [LLCI, ULCI]	Outcome: behaviors B (SE)	coaching [LLCI, ULCI]	Outcome: psychological safety B (SE)	team [LLCI, ULCI]	Outcome: team performance B (SE)	team in-role [LLCI, ULCI]	Outcome: team extra-role performance B (SE)	[LLCI, ULCI]
Gender of the leader ^a	-.14 (.11)	[-.35, -.07]	.21 (.11)	[-.01, .42]	-.15 (.11)	[-.37, .07]	-.11 (.10)	[-.30, .08]	-.11 (.09)	[-.30, .07]
Leader experience (years)	.02 (.01)	[-.03, .03]	-.01 (.01)	[-.02, .01]	-.01 (.01)	[-.03, -.01]	.03 (.01)***	[.01, .04]	.02 (.01)	[.00, .03]
Leader's education ^b	.04 (.05)	[-.06, .14]	-.03 (.05)	[-.14, .07]	-.05 (.05)	[-.06, .15]	.02 (.05)	[-.07, .11]	.02 (.04)	[-.07, .11]
Management level ^c	.14 (.13)	[-.12, .40]	-.12 (.13)	[-.39, .14]	.33 (.13)*	[.07, .59]	-.25 (.12)	[-.49, .02]	.01 (.11)	[-.21, .23]
Leader's self-efficacy	-.24 (.11)*	[-.45, -.03]	.05 (.11)	[-.16, .27]	.00 (.11)	[-.22, .21]	.38 (.09)***	[.19, .56]	.33 (.09)***	[.15, .51]
Leader's affective MTL	-.25 (.08)*	[-.41, -.09]	.14 (.08)	[-.02, .30]	-.19 (.08)*	[-.36, -.02]	.05 (.07)	[-.09, .20]	.13 (.07)	[-.02, .27]
Leader's social-normative MTL	.32 (.13)	[-.12, .38]	.07 (.13)	[-.19, .32]	.04 (.13)	[-.22, .29]	.05 (.11)	[-.17, .27]	-.05 (.11)	[-.26, .16]
Leader's compassionate love	.46 (.10)***	[.26, .67]	.16 (.11)	[-.06, .39]	.49 (.11)***	[.26, .71]	-.01 (.11)	[-.32, .10]	-.05 (.10)	[-.25, .15]
Leader's non-calculative MTL			.20 (.09)*	[.02, .38]	-.11 (.09)	[-.29, .08]	.06 (.08)	[-.10, .23]	.07 (.08)	[-.09, .22]
Leader's coaching behaviors					.28 (.09)**	[.09, .46]	-.02 (.08)	[-.18, .15]	.01 (.08)	[-.15, .17]
Team psychological safety							.32 (.08)***	[.16, .48]	.27 (.08)***	[.12, .42]
F	6.61***		1.97*		4.37***		4.89***		3.94***	
R ²	.31		.13		.27		.32		.27	

Table 2. *Bootstrap regression analysis (5000 samples; Model #6, Hayes, 2018)*

Notes: N = 128 leaders; * $p < .05$, ** $p < .01$, *** $p < .001$; ^a 0: female, 1: male; ^b 1: less than a degree, 2: degree, 3: degree plus post-graduation, 4: Masters, 5: PhD; ^c 0: mid-level management, 1: top management

DISCUSSION

The study indicates that a leader's compassionate love is positively associated with greater team performance through, sequentially, noncalculative MTL, coaching behaviors, and team psychological safety. Our research not only empirically supports the distal-proximal model of motivation and leadership, but also expands that framework by indicating the significance of team psychological safety as a mediator in the relationship between leader behaviors and leadership effectiveness. Overall, our research suggests that a leader's compassionate love ignites a pathway that, while not being compassionate in nature, fosters important leader behaviors and team emergent states, resulting in greater team performance. Our paper suggests that compassionate love in leaders not only makes them more virtuous but also more effective.

The study has several limitations. First, other causalities are possible (e.g., leaders' coaching behaviors may lead team members to act compassionately toward the leader, thus invoking the leader's compassion toward them). Future studies may thus adopt longitudinal or diary designs to test other causal pathways. Second, future studies may include team objective performance as the dependent variable and consider that the relationship between team psychological safety and team performance is indirect through mediating mechanisms such as team learning and knowledge sharing. Third, the effect of the leader's compassion on team members may be moderated by the team members' characteristics (e.g., altruistic motives; empathic concern). Fourth, our measures are limited in terms of content validity. Moreover, data may suffer from selection bias. Future studies may adopt measures with better content validity to address this bias.

CONCLUSION AND PRACTICAL IMPLICATIONS

Researchers and practitioners have considered leadership as crucial to team effectiveness and have tried to identify the leadership characteristics that contribute to such outcomes. Compassionate love, however, has not been explored as one of those leadership characteristics. Our work shows that a leader's compassionate love is positively associated with higher team performance, indicating that compassionate leaders are not only more virtuous but also more effective. A practical implication of our study, therefore, is that compassionate love in leaders must not be considered merely as an "unrealistic" and "politically correct" consideration (Frost and Robinson, 1999, p. 98). To the contrary, a leader's compassionate love is central for the well-functioning of teams and organizations. Compassionate love in leaders must therefore be considered in both selection and training and development processes.

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EVALUATION OF INTERNAL COMMUNICATION IN HEALTHCARE ORGANIZATIONS

Reigas, Viljaras¹; Šimanskienė, Ligita¹; Paužolienė, Jurgita¹; Fiore, Mariantonietta²

¹Management Department, Klaipėda University, Klaipėda, Lithuania

²Department of Economics, University of Foggia, Foggia, Italy

ABSTRACT

In all types of healthcare organizations, communication plays a very important role because many problems happening in the management systems may result from missing of communication and the effective communication is a reason to the proper functioning of management system. Internal communication in healthcare organizations can be influenced by the organizational structure, organizational work culture and work-related documentation management. It is well known that the strong internal communication is not only related to pass the information, but also to motivate and to educate medical staff, to create effective communication channels. In the Covid-19 Pandemic situation, healthcare organizations have meet non-specific situation in processes of communication: lock-down, new disease, not clear spread, delayed treatment, missing of staff members, new communication channels and etc. In considering this context, we formulated the 2 following research questions: “How has the Covid-19 Pandemic situation changed the processes of internal communication in healthcare organizations?” and “How have healthcare employees reacted to different channels of internal communication?”. The work makes use of a survey according to the Scale of Communication in Healthcare Organization administrated in 2021 in April healthcare establishments with the same form of ownership and subordination – non-profit-making public bodies that meet the needs of the public. The total number of respondents in the survey was 685. Findings highlight that there are some barriers in internal communication. However, on the other hand, it is possible to notice that employee’s relationship takes the very important place in communication of healthcare organization, because in this way they can get important information for the tasks and evaluate the quality of their work. . Finally, some recommendations for managers on how to solve these problems are drawn.

Keywords: internal communication, health care, organizations, COVID-19

INTRODUCTION

This work aims to investigate how the Covid-19 Pandemic situation has shifted the processes of internal communication in healthcare organizations and successively to study the relative reactions

of healthcare employees to these changes in different channels of internal communication.

In all types of organizations, communication can be divided to internal and external communication. In this research, we'll analyze the internal communication which is related to relationship with employees and contacts with top managers. In the process of evaluation of organizations' goals, it's very important to analyze the level of trust of internal communication, to identify weaknesses in internal communication and to develop an effective model of internal communication that achieves strong employee commitment to the organization and effective work. All this is necessary to achieve the goals of organization. However, even internal communication can be affected by external factors, such as a global pandemic.

Covid-19 Pandemic situation has changed everything in relationships between society and in different types of organizations highlighting emerging unprecedented challenges (Grigorakis *et al.*, 2021). Some organizations were locked-down, others had the possibilities to provide non-contact services. Healthcare organizations has not chance to take a break in this situation. Contrary to this, healthcare workers had to find the ways for better communication with each other, patients and their families. Covid-19 was a challenge to learn a virtual communication skill and find the new communication channels. Fast changes in organization and flow of new information about new disease influenced employees psycho-emotional well-being, ways to communicate, trust with each other's, increased dissatisfaction with restrictions in area of communication, reduced efficiency of medical staff and etc.

Obviously, the effective inner communication helps the members of any organization to understand all organizational processes, feel as a part of a certain organization and feel responsible for their actions. Often the problem of inadequate inner communication emerges, as there is a lack of information, the communication processes are ineffective and insufficient between managers and ordinary employees. As employees of any organization highlight lack of information, the engagement to seek for organizational goals become weaker, as well as employee loyalty and motivation decrease. In order to strengthen employee engagement and motivation, it is important to form an adequate organizational climate with an effective way of communication. Finally, within this pandemic crisis, this work tries to answer to these research questions: "How has the Covid-19 Pandemic situation changed the processes of internal communication in healthcare organizations?" and "How have healthcare employees reacted to different channels of internal communication?". In this way, the work deals with aspects and elements of novelty in this field of study and tries to fill up a recent scientific gap where the Covid-19 represents not just a threat but also a new challenge to learn about virtual communication opportunities and to find new communication channels. Therefore, the research is considered novel.

The work is structured as follows: first, a literature review section on the role of organizational communication is drawn; then, data and methods are presented. Finally, the results section show findings and the conclusions section closes the paper by addressing recommendations for managers and implications.

LITERATURE REVIEW

Organizational communication can be defined not only as a way to communicate with staff members and to transmit the information but also as a possibility and a key to improve the relations between organizations managers and employees. In accordance with other researchers we can say, that effective communication can be the key to create a strong relationship in organizations, ex. increasing motivation and involvement, work efficiency, success of changes and to building a positive internal and external image of the organization. Communication in all organizations is one of the Indicators. This indicator can present us that the relationships between staff members is a major determinant of how satisfied people are (Mousa *et al.*, 2020; Erjavec, 2019; Gresham *et al.*, 2016; Hargie, 2016; Isaacowitz *et al.*, 2007; Šimanskienė, Kutkaitis, 2013).

In scientific researches is possible to find a various definition of organizational communication. Definitions of organizational communication in research and it's literature are divided to internal and external, formal and informal communication. Very often it's very difficult to find the lines between internal and external communication. Internal communication expands beyond organizational borders and external communication receives great interest from organizational members (Salvatore *et al.*, 2020; Hume, Leonard, 2014; Jakubiec, 2019; Nembhard, Edmondson, 2006).

The organizational communication can be described as "the display and interpretation of messages among communication units who are part of a particular organization. An organization is comprised of communication units in hierarchical relations to each other and functioning in an environment" (Jakubiec, 2019), it also could be defined as "most scholars would agree that an organization involves a social collectivity (or a group of people) in which activities are coordinated in order to achieve both individual and collective goals" (Kwateng *et al.*, 2011). By coordinating activities, some degree of organizational structure is created to assist individuals in dealing with each other and with others in the larger organizational environment. With regard to communication, most scholars would agree that communication is a process that is transactional (i.e., it involves two or more people interacting within an environment) and symbolic (i.e., communication transactions stand for other things, at various levels of abstraction) (Men, 2015). To study organizational communication, this involves understanding how the context of the organization influences communication processes and how the symbolic nature of communication differentiates it from other forms of organizational

behavior" (Pace & Faules, 1994). "Internal communication underpins effectiveness, since it contributes to positive internal relationships by enabling communication between managers and employees" (Welch, 2013) and „Internal business communication is communication between people who are employed in an organization or between parts of an organization or between management and employees. It includes all communicative and information activities among the members of an organization. Internal business communication occurs as a mediator between the leadership of the organization and employees in achieving business goals and as well as a tool that enables employees to meet social and psychological needs" (Yang, 2014).

The relationship management literature is predominately based on Hon and Gruning's approach, by which the employee–organization relationship consists of multidimensional outcomes, such as trust, control mutuality, satisfaction, and commitment. Previous studies showed that "if members of an employee public have experienced good quality long-term relationships with their employer organization, they are likely to consider organizational problems as their own" (Meyerowitz, 1998; Schneider *et al.*, 2018). To keep a good long-term relationship between employees and their organization it is necessary to improve the communication processes (Erjavec, 2019; Mheidly *at al.*, 2020).

The challenge for management of communication processes is to determine what to communicate, when, with whom and most importantly which channel is most convenient for communication (Erjavec, 2019; Kwateng *at al.*, 2011; Schneider *et al.*, 2018; Welch, 2012). The efficiency of organizational communication is usually defined by the managers' usage of communication channels and the method of selection. The used channels shape key aspects of communication and affect the interpretation of the messages (Men, 2015; Meyerowitz, 1998). Employees are more satisfied in the organizations, where managers use interpersonal communication, and less computer-mediated communication, such as email. Interpersonal communication is based on non-verbal communication and allows immediate feedback, and at the same time indicates manager's willingness to listen to their employees (Erjavec *at al.*, 2018; Miller, 2015).

Employees prefer different communication channels from different management levels. The advanced information and communication technology introduced new channels of communication and changed the communication environment of organizations (Jim, Rhee, 2011; Schneider, *et al.*, 2018). For example, in these Covid-19 Pandemic days Healthcare organizations are forced to change the methods of communication and find the ways to transmit information in right way and right time. It's also obligatory to get a feedback form employee about the challenges and difficulties in organization. This example shows the importance of communication in organization when it's not

possible to communicate face-to-face or have department meetings (Munksgaard, Freytag, 2011; Suwannaporn, Speece, 2010; White *at al.*, 2010).

Selecting the optimal communication approach rests as much on expectations and beliefs of employees as on potential efficiency of message delivery. In the organization, there are two basic forms of communications, which are the formal and informal communication, and both of them are very important to manage the information in organizations (Figure 1) (Henke *at al.*, 2017; Jakubiec, 2019; Men, 2014).

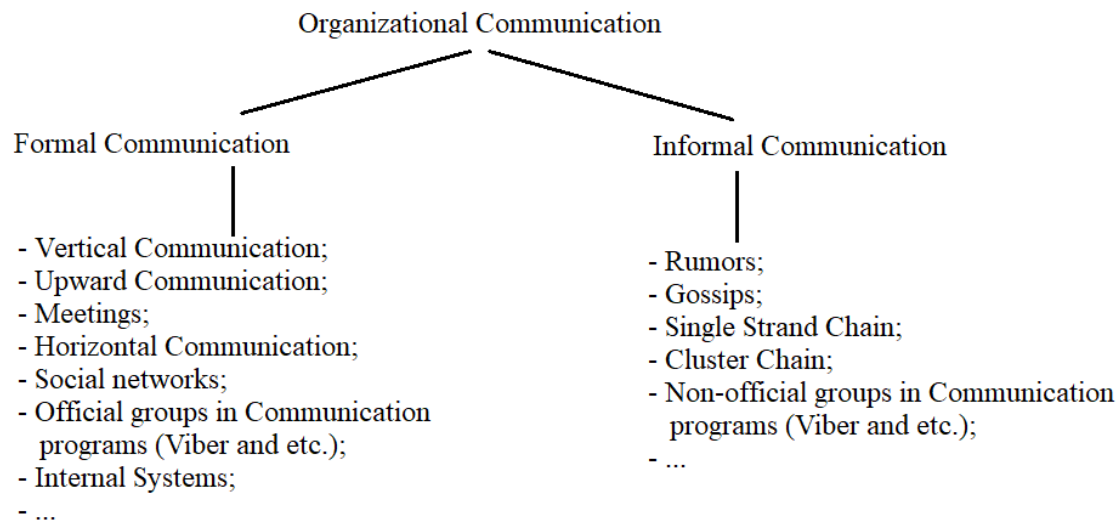


Figure 1. Forms of Organizational Communication.

Formal communication is one that is planned. It's official in relation to the organization, carried out in exactly the right shape and has the support of or is based on management decisions (press organizations, official meetings, acts of the organization). Legal framework and organizational structure determine the formal communication channels. The very channels of communication within the organization, to be effective, must be consistent with the internal organization and the organizational structure of the Healthcare organizations. Informal communication in Healthcare organizations is a network that relies on personal contacts of employees and as opposed to formal communication is not officially determined and defined (Jacobsen *at al.*, 2014; Suwannaporn, Speece, 2010; White *at al.*, 2010).

Formal communication in Healthcare organization (especially in non-profit hospitals and non-profit primary care centers who are in the subordination of municipality) is performed within the organizational hierarchy, from higher to lower levels. There are different formal communication forms, which can be used in the process of communication (Table 1).

Form of Communication	Explanation
Vertical communication	The dominant form of communication between employees. Due to the differences in status and powers between department managers (nurses-managers and doctors-managers) and employees, vertical communication often provides a distorted picture of the actual situation in the organization and departments because of incorrect, incomplete and ambiguous information. Message in vertical communication form of communication goes through different hierarchical levels, so that it often happens that the message becomes less accurate, and therefore it is recommended that they are in written form. Due to the different status positions the employed in the organization do not have the same access to information.
Upward communication	A form of communication where employees of the organization communicate information to the superiors about their ideas, requests, suggestions, complaints, and the like.
Meetings	They should be held regularly, in order to comprehend all the views and problems of employees and for managers, it is highly important for them to know what their employees think. Visiting employees - an advantage of this form of communication is that the employees in direct communication with their superiors can express their views. One of the main disadvantages of this communication is to a certain number of employees are reluctant to expose their problems when they are directly found face to face with the superior.
Horizontal communication	It is carried out between individuals of the same organizational level. In vertical communication between people that are in unequal position, while in the horizontal communication, people are on the same organizational level and start from the same position and have equal influence on decision-making. Horizontal communications are very important since they are improving coordination between groups, departments and services. Because it enables individuals to communicate with their peers, horizontal communication increases employee satisfaction.

Table 1. Forms of Formal Communication

Source: G.Gresham, J. Hafer, E. Markowski, 2006; C.Johanson, 2007; M. I.Stevanovic, A.M.Gmitrovic, 2016; L.M. Omilion-Hodges, C.R. Baker, 2014.

Informal communications in an organization are a form of communication, where the information is transmitted to an unofficial, informal way, beyond formal communication networks. They do not reflect the internal organizational hierarchy or the hierarchical relationship of organizational units. This form of communication annuls the rank or authority of the persons and can connect members of the organization in all directions, both horizontally and vertically. Employees can transfer whatever they want informal note to anyone in the organizational structure (Erjavec, 2019).

Employees of the organization associate with their peers, share information, which are or are not work-related. It occurs everywhere where employees gather in groups: in offices, rooms for the break. The informal communication network that develops in any organization is based on rumors and speculation, which spread very fast. But unlike the rumors and gossip, which actually represent information about other people, their attitudes, decisions and intentions, and are based on prejudice and half-truths, rumors can also bring the good news and that, in some cases significantly raises employee morale (Mayo, 2020; Miller, 2015; Stevanovic, Gmitrovic, 2016; Yue *et al.*, 2020).

Across healthcare settings, teamwork is critical to ensure the quality and safety of patient care, the well-being of healthcare professionals, and positive financial outcomes for healthcare organizations. The forms, definitions, requirements, standards of Communication etc. changed on 2020 of May. The reason for this change was Covid-19 Pandemic situation. 24/7 healthcare workers got new information about this disease, spread of it, symptoms, safety requirements and etc. All were talking about this (from scientists to politics), the Countries were closed, the Life stopped everywhere. The flow of information was a challenge for all, especially for Healthcare organizations and their employees. Healthcare workers (top managers, managers of departments, nurses-managers, and doctors-managers staff between each other, staff with patients and their family members) had to find the best communication methods and channels. The methods of communication in Healthcare organization changed from face-to-face to online meetings and online consultations (Figure 2) (Ju, 2012; Miller, 2015; Suwannaporn, Speece, 2010).

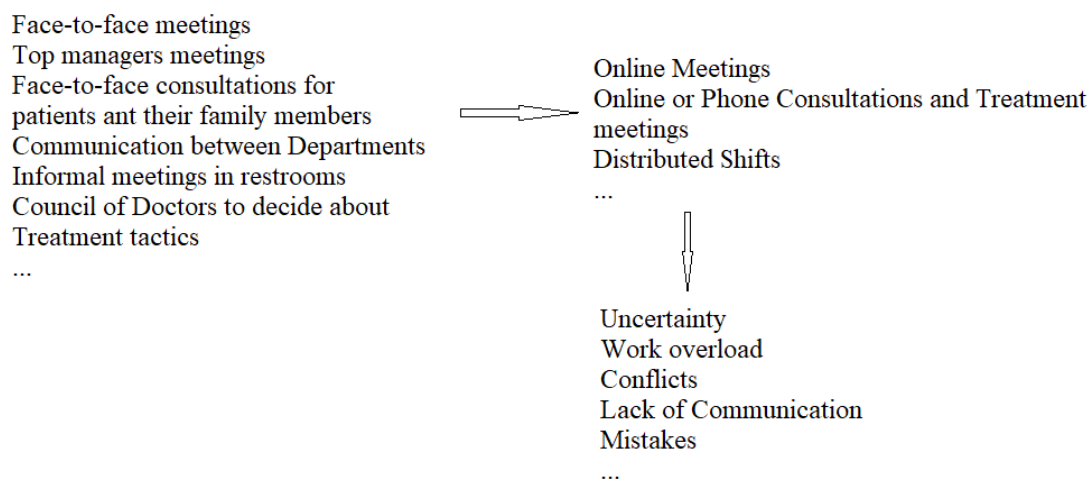


Figure 2. Impact of Covid-19 pandemic situation on changes of Communication and Healthcare Organizations.

The COVID-19 pandemic has severely affected the way people communicate with each other. Precautionary measures to limit the spread of the virus necessitated a shift in the communication paradigm when it comes to greetings and handshakes. The arising situation required people to adopt

salutations that do not entail physical contact, such as the “peace sign,” the “hand on chest,” and the “namaste”. In addition, emphasis on personal spaces and social distancing markedly increased, with telecommunication witnessing a huge rise, as business meetings, conferences, and educational activities shifted to virtual communication via social applications, such as Zoom, Skype, Viber and Microsoft Teams (Greshamat *et al.*, 2006; Jakubiec, 2019; Men, 2015; Welch, 2013).

DATA AND METHODS: THE SURVEY METHODOLOGY AND SAMPLING

The survey was carried out in 2021 in April in healthcare establishments with the same form of ownership and subordination – non-profit-making public bodies that meet the needs of the public. The institutions participated in research are located in Lithuania, Klaipėda city, provide specialized healthcare services, all of them are inpatient. A simple random sample was used in the research. A simple random sample is a subset of a statistical population in which each member of the subset has an equal probability of being chosen. The total number of respondents in the survey was 685.

The instrument used for the survey was the Scale of Communication in Healthcare Organization. It contained 63 statements (in 8 blocks) about employees’ view on general communication in organization, problems related to communication, acceptable communication channels, communication on Covid-19 Pandemic situation and its level, possibilities to improve communication in Organization and demographic Questions. This scale was created by the Authors of this Research and using the dates in the Researches by White, C. *et al.* (2010), Johanson, C. (2007), Stevanovic and Gmitrovic (2015), Jacobsen *et al.* (2014) and Yue *et al.* (2020).

During the study, 954 questionnaires were distributed (71.8% return rate). Survey respondents consisted of 38.5% nursing staff, 12.4% doctors, 44.6% other healthcare specialists and 4.5% non-healthcare specialists. The majority (90.4%) don’t take managers position, 57.6% wasn’t infected by Covid-19 and 51.0% haven’t worked in Covid-19 treatment department.

Data processing methods. The collected empirical data were processed using the SPSS 23.00 (Statistical Package for the Social Sciences). The data processing descriptive statistics were used, such as percentiles, mean, mode, and standard deviation. The data was also processed by the one-way analysis of variance (ANOVA) and Independent samples *t-test* where significant differences are when $p \leq 0,05$.

Research ethics. The research was guided by ethical principles. The principle of goodwill is ensured by the statements of the questionnaire, which are presented in a respectful style, without creating preconditions for respondents to lose privacy. Applying the principle of respect to the individual, the purpose of the study was explained to the respondents. Volunteering is the free will of

study participants to participate or not to participate in a study. Research participants are guaranteed anonymity and data confidentiality.

Research limitations. It was impossible to reach all medical personnel having work relations in Lithuanian Republic. The pandemic situation was an important limit to spread the paper surveys. What is more, medical personnel have a higher workload due to the pandemic situation; therefore, there was a lack of time for filling in the surveys. Paper and e-surveys were used.

Statements	Mean	Median	Mode	Std. Deviation
I receive all necessary information for my work as I communicate with my colleagues	3,47	3,00	4	0,932
I clear out the requirements of my tasks as I communicate with a head of the department	3,64	4,00	5	1,378
I think that the interrelationship among colleagues is strengthened by communication inside the department	3,74	4,00	4	0,960
Communication with colleagues gives an opportunity to evaluate each other's work quality	4,37	5,00	5	0,912
I think that the head of the department spreads all the necessary information for the task completion	3,93	4,00	4	0,868
In the case of the necessity, they have a possibility to give recommendations and ideas	3,07	3,00	3	1,205
I freely express my opinion at work	3,53	4,00	4	1,038
I think that all information is clearly spread among the personnel	3,36	3,00	4	1,202
I believe that all the information is spread on time	3,30	3,00	4	1,135

Table 2. Point of view of medical personnel about communication inside the organization

RESULTS

After evaluation of the research data, it was stated that respondents mostly agree that while communicating with a head of the department they can clear out the task requirements (mode 5, avg. 3,64) as well as communication with colleagues gives an opportunity to evaluate each other's work quality (mode 5, vid. 4,37). The analysis of the research data states that the research participants agree with such statements as: I receive all necessary information for my work as I communicate with my colleagues (mode 4, avg. 3,47); I clear out the requirements of my tasks as I communicate with a head of the department (mode 4, avg. 3,64); the interrelationship among colleagues is strengthened by communication in the department (mode 4, avg. 3,74); the head of the department spreads all the necessary information for the task completion (mode 4, avg. 3,94); I freely express my opinion at work

(mode 4, avg. 3,53). The research participants partly agree with the statement that in the case of the necessity they have a possibility to give recommendations and ideas (mode 3, avg. 3,07) (3 table).

The assessment of the point of view of the medical personnel assumed that giving recommendations and ideas is not allowed for everybody. However, the research results reveal the specific communication culture. The research results were compared within 2 independent samples, and it was important whether the research results depend on the personnel's managing positions or not. T-criterion of 2 independent samples allowed to prove whether the average differences of the same variable in the grouped data (i.e., among groups) were statistically meaningful. The data analysis has shown that the average difference is statistically meaningful.

Statements	Do you have a managing position?	Mean	Sig.
I receive all necessary information for my work as I communicate with my colleagues	Yes	3,65	p=0,000<0,05
	No	3,23	
I clear out the requirements of my tasks as I communicate with a head of the department	Yes	4,61	p=0,000<0,05
	No	3,52	
I think that the interrelationship among colleagues is strengthened by communication inside the department	Yes	3,67	p=0,055>0,05
	No	3,75	
Communication with colleagues gives an opportunity to evaluate each other's work quality	Yes	3,89	p=0,000<0,05
	No	4,43	
I think that the head of the department spreads all the necessary information for the task completion	Yes	4,45	p=0,002<0,05
	No	3,86	
In the case of the necessity, they have a possibility to give recommendations and ideas	Yes	4,50	p=0,030<0,05
	No	2,89	
I freely express my opinion at work	Yes	4,21	p=0,000<0,05
	No	3,45	
I think that all information is clearly spread among the personnel	Yes	3,76	p=0,772>0,05
	No	3,31	
I believe that all the information is spread on time	Yes	3,84	p=0,000<0,05
	No	3,23	

Table 3. Point of view of medical personnel about the communication inside the organization depending on the position

The research results show that often the choices of managing medical personnel and ordinary medical personnel differ. Those who have a managing position are more likely to agree with the statements that they receive all necessary information for their work as they communicate with the colleagues (avg. 3,65), clear out the requirements of the tasks as they communicate with a head of the

department (avg. 4.61), that the head of the department spreads all the necessary information for the task completion (avg. 4.45), that they have possibilities to give recommendations and ideas (avg. 4.5), that they freely express their opinion at work (avg. 4.21) and that all the information is spread on time. On the other hand, the medical personnel that did not have managing positions partly agree with the statements above. They expressed a stronger agreement with the statement that communication with colleagues gives an opportunity to evaluate each other's work quality (avg. 4.43), in comparison to the personnel with higher positions (žr. 4 table).

In order to analyze the research data factor analysis was completed. It shows that variables of each group may be unified by some factors that were not directly observed, i.e., it allows selecting certain groups called factors in the array of variables (Bilevičienė, Jonušauskas, 2011). While checking if the data is suitable for the factor analysis, Bartlett sphericity criterion (measured as Chi-square (X^2) meaning), which gives an answer whether there are statistically meaningful correlating variables among all observed variables. If the meaning of a Bartlett sphericity criterion p-meaning is higher than the chosen level, in this case 0,05, it shows statistically meaningful correlation. If $p \leq 0,05$, the factor analysis for the data is applicable. KMO measure evaluates if the data is used for the factor analysis. After completion of KMO and Bartlett test, KMO indicator is 0,516, and this shows that the data is applicable for the factor analysis. The analysis of a Bartlett sphericity test, the meaning of *Chi-square* (1,011,793) and a suitable p meaning shows that there are factors with a statistically meaningful correlation $p < 0,05 = 0,000$. According to KMO and Bartlett sphericity coefficient results the research data is suitable for a factor analysis and there are statistically meaningful variable correlations.

The analysis of a rotated factor (5 table) matrix shows that 4 factor groups were picked out. The wights of the factors vary from 0,014 to 0,746. The first factor consists of two statements: I receive all necessary information for my work as I communicate with my colleagues ($\lambda_{ij} = 0,797$); the head of the department spreads all the necessary information for the task completion ($\lambda_{ij} = 0,753$). It is noticed that the statement in this group is more related to the spreading of information. The second factor consists of 1 statement: in the case of the necessity, they have a possibility to give recommendations and ideas ($\lambda_{ij} = 0,885$). The third factor consists of 3 statements: I clear out the requirements of my tasks as I communicate with a head of the department ($\lambda_{ij} = 0,718$); I think that the interrelationship among colleagues is strengthened by communication inside the department ($\lambda_{ij} = 0,587$) and I believe that all the information is spread on time ($\lambda_{ij} = -0,746$). The fourth factor consists of two statements: communication with colleagues gives an opportunity to evaluate each other's work quality ($\lambda_{ij} = -0,664$); I freely express my opinion at work ($\lambda_{ij} = 0,729$). The third and the fourth groups had negative coefficients, and it is assumed that the information in the research organizations is not spread on time.

Statements	Component
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	1	2	3	4
I receive all necessary information for my work as I communicate with my colleagues	0,797	0,195	-0,106	0,073
I think that the head of the department spreads all the necessary information for the task completion	0,753	0,042	0,162	-0,002
I believe that all the information is spread on time	0,446	0,286	-0,664	0,117
I clear out the requirements of my tasks as I communicate with a head of the department	0,118	0,014	0,718	0,315
I think that the interrelationship among colleagues is strengthened by communication inside the department	0,099	0,560	0,587	-0,248
Communication with colleagues gives an opportunity to evaluate each other's work quality	0,137	0,003	0,093	-0,746
I freely express my opinion at work	0,146	0,083	0,222	0,729
In the case of the necessity, they have a possibility to give recommendations and ideas	0,110	0,885	-0,125	0,096

Table 4. Rotated factor analysis matrix

The research data and the results of the rotated factor analysis matrix show that there are correlating statements in each group with an assumed general indicator as personnel interrelations. To be concrete, the information necessary to complete working tasks is spread, relations are strengthened, and work quality is evaluated during interpersonal communication.

The respondents were asked what the main obstacles for inner communication are, whether they agree with the stated problems. The table 5 presents many problems of inner communication: lack of feedback, big staff turnover, intense flow of information, conflicts between employees and managers, inadequate choice of communication types with different people, presenting information not on time, distrust on some employees, lack of communication skills. It is interesting to notice that despite all the communication problems, the personnel do not want trainings in communication and corporate festivals. This could be explained by high job intensity and lower possibility to entertain together, because job specifics show that the personnel cannot have festivals altogether. Still we think that the managers have to look for the ways how employees could engage in informal communication in order to get to know each other, find ways to communicate with a certain employee, how to present important information or critics.

Statements	Mean	Median	Mode	Std. Deviation
There is a difference between employees having managing positions and those having ordinary positions	3,98	4,00	4	956

Lack of feedback	4,88	5,00	5	387
Work intensity / lack of time	3,85	4,00	5	1,160
Continuous staff turnover	4,12	5,00	5	1,059
Information flow is too intense	4,85	5,00	5	472
Conflicts	4,57	5,00	5	846
Personality differences	3,84	4,00	5	1,111
Rumors, gossips	3,71	4,00	4	1,031
Outdated IT	3,48	4,00	4	1,138
Inadequate choice of communication types	4,39	5,00	5	789
Lack of informal forms of communication (corporate festivals, excursions, etc.)	3,31	3,00	3	839
Presenting information not in time	4,90	5,00	5	341
Distrust on some employees	4,78	5,00	5	806
Lack of communication skills	4,80	5,00	5	554
Lack of training about communication	3,28	3,00	3	695

Table 5. Barriers in communication

Finally, these results appear in line with previous research that highlight that the employee–organization relationship consists of trust, satisfaction, commitment (Meyerowitz, 1998; Schneider *et al.*, 2018) thus stressing the importance to keep a good long-term relationship between employees and their organization by means of improving of communication processes (Erjavec, 2019; Mheidly *et al.*, 2020).

As demonstrated, internal business communication has to play an important role as a mediator between the leadership team and employees in reaching firms goals (Jakubiec, 2019; Men, 2015; Stevanovic & Gmitrovic, 2016).

CONCLUSIONS

Covid-19 Pandemic situation has totally changed the processes of communication in Healthcare organization: moving from face-to-face communication to virtual communication in many areas, importance to find and learn new channels of communication and give an attention to the quality of communication. It was also a challenge for top managers – to find the best ways to manage systems of communication and to give all the information in right time. The results of this research have shown that respondents strongly agree with the importance of communication with manager and with that, that on the process of the communication they can evaluate each other quality of the tasks. Employee's relationship takes the very important place in communication of healthcare organization, because in this way Employees can get important information useful for the tasks and

necessary to evaluate the quality of their work. Regarding the limitations of this work, they can be identified in the difficulty to collect a correct sample as the pandemic situation was an important limit to spread the paper surveys and on the other hand, medical personnel had a higher workload due to the pandemic situation. Further research will aim to verify the goodness of the survey by means of previous focus groups of experts, to widen the sample, and to compare data from Lithuania with data from other EU countries thus applying a neural model of artificial intelligence to improve forecasting accuracy.

Implications

This research clearly allows to draw implications and to present recommendations to managers of medical institutions in order to improve inner communication:

- To organize the work in the way that all employees would get information at a pre-arranged time and in a scheduled manner.
- To formulate clear tasks for the employees and discuss mistakes if any.
- To optimize the information flow: protect employees from information excess.
- To develop employee personal interests since it will help them to feel important in an organization, the information will be positively accepted, a wish to search for general corporate goals will emerge.
- To foresee the workload according to the position and working hours.
- To ensure psychologic and ergonomic working conditions. To explain the reasons of conflicts inside organizations and look for decisions.
- To develop the relations with employees. Managers should choose an appropriate way of communication for each employee and give feedback on time.

All this calls for delivering information to managers for health management and planning thus reinforcing the great role of leadership support in internal and external communication (Chatterjee et al., 2021). In the context of a new health-socio-economic crisis associated to the COVID-19 pandemic, health policy strategies and tools have to face 'the emerging unprecedented challenges' (Grigorakis et al., 2021).

Therefore, the work offers interesting managerial and political implications. All the managers should try to adopt adequate communication calibrated on each employee and style of behaviour. Policy-makers should promote and finance continue training for health organizations and their managers and employees above all in this pandemic crisis where people involved in such processes are getting stressed and distrusted.

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THE ROLE OF SOCIAL MEDIA IN CITY BRANDING

Rojíková, Darina¹; Vaňová, Anna¹; Vitálišová Katarína¹; Borseková, Kamila²

¹Department of Public Economics and Regional Development, Faculty of Economics, Banská Bystrica, Slovakia

²Research and Innovation Centre, Faculty of Economics, Banská Bystrica, Slovakia

ABSTRACT

The role of communication in the theory of branding is overestimated or underestimated by the authors. New possibilities of communication through social media provide cities with new opportunities to communicate with the target audience, thereby influencing the perception of the city's image and subsequently place branding. Based on a theoretical overview, the paper defines the brand of a city and the role of marketing communication, especially social networks, in its construction. The aim of the paper is to identify the most used social media platforms and the degree of use of their potential for communication and branding of selected European and Slovak cities. Based on empirical research in 18 selected European cities and on the whole set of cities (141 towns and cities) in the Slovak Republic, we identified the social media used and analysed their use in creating a city brand through the model of digital communication of the city. The conclusion of the article summarises the results of the research and points out the possibilities of using social media in city branding.

Keywords: City. City branding. Social media. Marketing communication. Model of digital communication of the city.

INTRODUCTION

In the turbulent and developing current period of time, characterised by the process of globalisation, which brings uniformity, it is not possible to build a competitive advantage only on the quality of a territory and the associated hard localisation factors. It is necessary, and in many cases, even necessary to offer something unique, specific, or something that will appeal to a specific market. Recently, there has been an increasing need to increase the competitiveness of a territory, especially through image and brand as soft localisation factors. Despite the fact that these are qualitative, intangible and more or less subjective attributes of a territory, they offer a certain potential for differentiation of territories, which, from the point of view of many traditional localisation factors, show an ever-increasing degree of similarity.

With the advent of modern information and communication technologies, the forms, tools and channels of marketing communication are changing dynamically. The role of social media is growing

significantly, enabling faster, two-way communication, based on building relationships with current as well as potential consumers of a territory. Modern forms of marketing communication create new opportunities for creating the image and place brand, as they affect the recognisability of the territory as a brand, so their introduction into the process of place branding is not just a choice but a necessary and key prerequisite for success.

The aim of the paper is to identify the most used social media platforms and the degree of use of their potential for communication and branding of selected European and Slovak cities. The article is divided into three chapters. The first part of the article theoretically defines the relationship between the city brand and marketing communication. The second part defines the methodology and data used. The third part of the article presents the results of the analysis of the use of the potential of social media platforms for communication with target groups and city branding on the example of selected European and Slovak cities using the model of digital communication of the city on social media. In the conclusion, we summarise the results of the research and point out the possibilities of using social media in city branding.

CITY BRANDING AND SOCIAL MEDIA

Experts (inter alia Anholt (2007), Vela (2013), Eshuis et al. (2014), Baker (2019) and others) agree that there is no uniformly accepted definition and approach to a city brand and its construction. The reason for the relatively large number of different definitions and approaches to a city brand is the diversity of functions that a city brand performs and its multidisciplinary nature, which requires knowledge from many disciplines.

Authors such as Foret (2006); Anholt (2007); Dinnie (2009); Govers, Go (2009), Zenker (2011); Mueller and Schade (2012), Matlovičová (2015), Dinnie (2015) agree that a city brand is based on its identity, which is formed by a number of sets of tangible and intangible elements and characteristics of the territory existing within a particular socio-cultural environment. such as history, culture, myths and legends, rights, lifestyle, architecture, food, music, language, etc., which are unique and can provide the area with certain advantages compared to other competing territories. According to Siwek (2011) and Chromý et al. (2014) the identity of a city is variable over time, as it is based on the potential of the city, which is significantly shaped by environmental influences.

For the needs of creating and managing a city brand on the market, it is necessary to select and subsequently reduce a large number of elements of the city identity to a smaller number of representative categories of elements that will represent the identity of the city brand. The theoretical framework thus defined presupposes the existence of a number of elements of the city's identity which are not part of the city's brand identity. Although these hidden elements of the city's identity do

not act as part of the city's brand identity and are therefore not the subject of brand marketing communication (especially negative attributes), they do play an important role in shaping the image of the city and its brand (Matlovičová, 2015).

According to Kotler et al. (1993); Tapachai, Waryszak, (2000); Beerli, Josefa (2004); Frantal (2007); Govers, Go (2009); Ashworth et al. (2015) the image of a city is a mental portrait, or the prototype of the city, which is created on the basis of its visitors and represents a synthesis of the perception of the given city, and includes various attitudes, preferences, evaluations and relationships to the territory.

From the above theoretical background, it is clear that a city brand is an element that connects the identity of the city with its image (through the identity and image of the city brand), while the identity of the city precedes the image of the city. City management should therefore first and foremost create a vision of the city's identity (based on the potential of the territory), which will transform into a brand identity and consider how it will communicate it to consumers. The communicated elements of the identity of the city brand are the subject of perception by the recipients and subsequently transformed into the image of the city brand image.

Based on the theoretical basis, which deals with the issue of city branding and the role of communication, we can say that the connection between the city brand and communication is very close.

Authors such as Kavaratzis (2008, 2010), Braun et al. (2014), Cavia et al. 2018, Baker (2019) and others argue that cities communicate their brand using three methods. The first method of communication (primary or physical communication) is related to the physical elements and activities of the city, which include architecture, city design, infrastructure, but also the behaviour of the city, e.g. municipal institutions and residents.

The second method of communication involves formal communication through various traditional and modern forms of marketing communication. It is also referred to as the secondary communication of the city brand.

The third method of communication - tertiary communication concerns the oral presentation of information about the city through consumers of the city and is based on their personal experience with the city. Tertiary communication is an uncontrolled method of communication, as it is largely beyond the control of the territory management. Tertiary communication primarily affects the image of the city, which then affects the brand of the city. This type of communication can bring great benefits, but also cause quite a few problems. The problem with this type of communication occurs mainly when consumers of the city have a negative experience with the city. It is therefore important to get this method of communication at least under the partial control of the city, for example through social media.

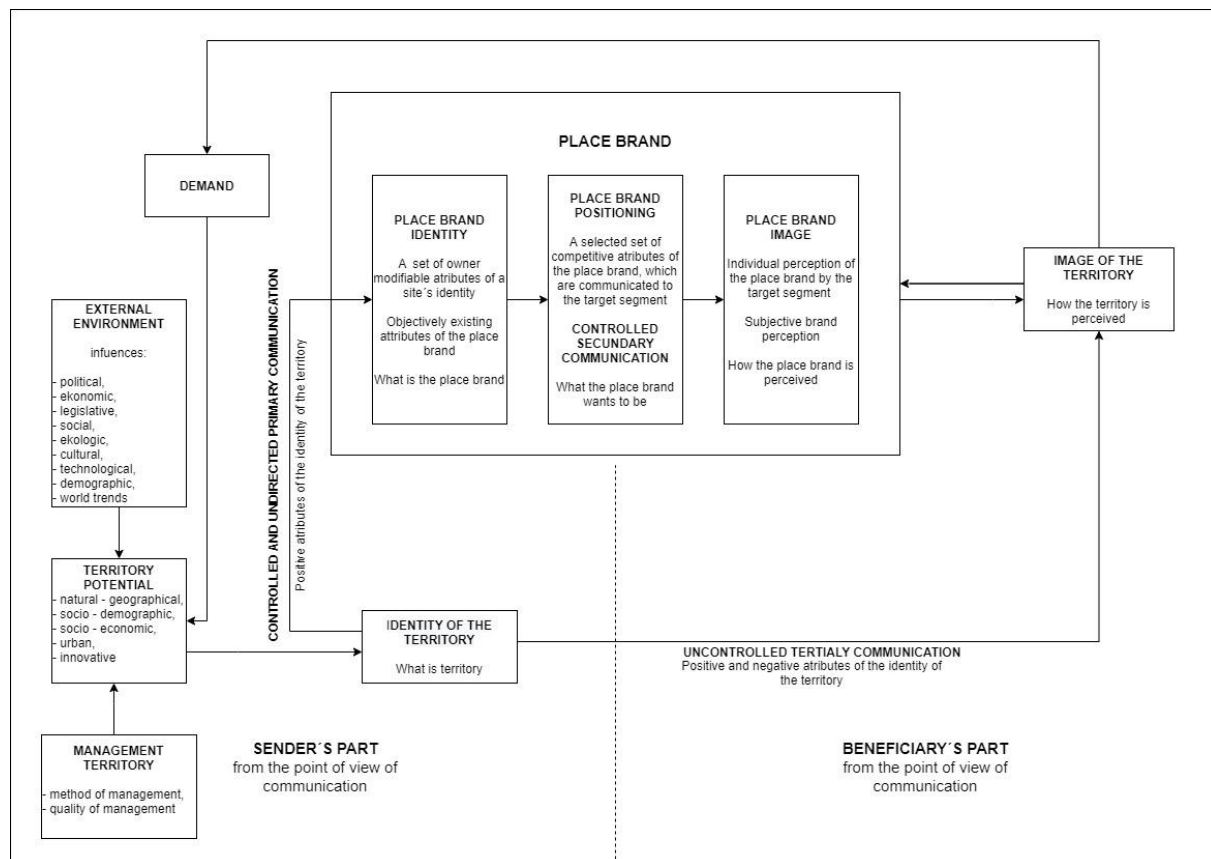


Figure 1. Theoretical framework of city branding based on Kavaratzis (2008), Matlovičová (2015), Vaňová et al. (2017)

Social media platforms are the world's most visited websites with significant growth potential. According to Statista (2018), in 2018, 2.62 billion people worldwide used the social media platforms at least once a month, and the average time spent was 135 minutes a day. It is for this reason why it is important to use social media intensively when branding.

The term social media usually includes social networking sites, mobile communication channels, and tools through which users can share opinions, textual, audio-visual, and visual content. As the name implies, social media involves building communities and networks and encouraging their users to participate and engage (CIPR, 2013), thus significantly expanding the reach to the target audience.

Kollárová (2014) divides social media into three platforms: social networks (Facebook, Google+, LinkedIn, etc.); blogs (WordPress, Blogger) and discussion forums (Google Groups, Yahoo Groups, Answers). Experts from the Cite agency (2012) also assign other platforms to the mentioned platforms, namely: microblogs (Twitter, Posterous, Tumblr, etc.); online rating sites (TripAdvisor, Zagat, Google Places); social bookmarking (StumbleUpon, Delicious, Digg); podcasting; social knowledge and Wiki (Wikipedia, Quora); geo-location services (FourSquare); shared multimedia (YouTube, Instagram, Last.fm, SlideShare). These types of social media also include platforms for sharing photos, chats, games, but also business networks, etc.

By city brand communication via social media, we mean any city-related communication 'distributed through social media that allows Internet users to access, share, interact, add and co-create' (Alhabash, Mundel and Hussain 2017, p. 286). In addition to these activities and the provision of standard information, e.g. on city administration, cities use social media mainly as the opportunity for monitoring attitudes and opinions in social media discussion forums, conducting informal surveys, creating databases of potential consumers, viral marketing (Das, Mondal, 2020; Kim et al., 2019; Přikrylová et al., 2019; Labanauskaite et al., 2020). A very popular feature is the addition of images, photos, videos, which can significantly affect the recognition of the city as a brand.

In order for communication on social media to be effective, according to Janouch (2014), Labská et al. (2014) it must be implemented actively and up-to-date, which requires considerable financial resources to ensure quality human resources which will be devoted to activities in a systematic, comprehensive and targeted manner. Přikrylová et al. (2019) argue that the measurability of the effectiveness of marketing communication or its individual activities on social media is quite complex. This is related to the fact that it can be implemented mostly indirectly, e.g. by monitoring the development of traffic on the site / profile on social media, in the form of monitoring feedback (number of views, likes, shares, comments).

DATA AND METHODOLOGY

The article deals with the current topic of the role of social media in city branding. The aim of the article is to identify the most used social media platforms and the degree of use of their potential for communication with target groups and branding of European and Slovak cities.

Our basic assumption was that cities commonly use social networks to communicate the brand (through the identity of the city), based on which it tests the hypothesis:

H0: Cities with a better brand communicate more intensively through selected social networks than cities without a significant brand.

To define the relationship between city branding and social media as modern forms of marketing communication, we use the method of studying foreign and domestic scientific works and professional literature. In the first phase of the primary research, we identified the social media used by cities in general. Subsequently, we verified their use by empirical research on a sample of 18 selected European cities (Stockholm, Geneva, Prague, Paris, Amsterdam, Frankfurt, Copenhagen, Vienna, Rotterdam, Berlin, Munich, Dublin, Rome, Milan, Moscow, Barcelona, London) which figure in the ratings of the city brand rating (Anholt - Ipsos City Brand Index, Saffron City Brand Barometer, Bloom Consulting Digital City Index), and in all 141 towns and cities of the Slovak Republic in 7 size categories (Table 1) from 1,000 inhabitants to more than 100,000 inhabitants.

Designation categories of	Group of cities	Size categories of the cities	Number of the cities
1	European cities	100,000+	18
2	Slovak cities	100,000+	2
3	Slovak cities	50,000-99,999	8
4	Slovak cities	20,000-49,999	29
5	Slovak cities	10,000-19,999	33
6	Slovak cities	5,000-9,999	45
7	Slovak cities	2,000-4,999	22
8	Slovak cities	1,000-1,999	2
Total			159

Table 1. Number of the Slovak and European cities by size categories

We conducted the research for two weeks from 16.11.2020 to 29.11.2020. We searched for official city profiles by city name directly on individual social media platforms. We examined a total of 22 social media using the observation method: Facebook, Instagram, Twitter, YouTube, Ivoox, FriendFeed, LinkedIn, Delicious, Slice, Formspring, Flickr, Google+, Customizable, Trhowplie, Reddit, StumbleUpon, Blogger, Tumblr, Pinterest, Xing, Vimeo and Snapchat. Subsequently, we collected data on indicators of official city profiles on the three most used social media platforms (number of posts published by the city, number of followers of the city profile, number of shares of the city by individuals, number of 'likes' (reactions) on city posts, number of individual comments on the city's contributions and the number of comments answered by the city).

We further analysed the data using the model of digital communication of the city on selected social media platforms. The methodology of the model of digital communication of the city on social media is based on the methodology originally developed by Bonson, Ratkai (2013) and later modified by Molinillo et al. (2019). The city digital communication model provides information on the extent to which a city is able to arouse interest and reach its target audience through its activity on a social media platform.

The city's digital communication (DCC) on the social media platform is calculated as the sum of the virality (V), interaction (I), popularity (P) and engagement (E) of the city on the social media platform:

$$DCC = V + I + P + E$$

The virality (V) of the posts published by the city reflects the interest of the followers of the city profile in the content published in the posts, while:

$$V = \frac{\frac{\text{number of shares of the city's posts by individuals}}{\text{number of posts published by the city}}}{\text{number of city profile followers}}$$

Interaction (I) reflects the level of cooperation with other observers of the city profile, where:

$$I = \frac{\frac{\text{the number of individual comments on the city's posts}}{\text{number of posts published by the city}}}{\text{number of city profile followers}}$$

Popularity (P) can be defined as the attractiveness of posts published by the city, where:

$$P = \frac{\frac{\text{the number of "likes" (responses) to the city's posts}}{\text{number of posts published by the city}}}{\text{number of city profile followers}}$$

Involvement (E) indicates the degree of deeper interest of the city in communication with the followers of the city profile and work on social media in general, while:

$$E = \frac{\frac{\text{počet komentárov zodpovedaných mestom}}{\text{počet príspevkov uverejnených mestom}}}{\text{počet sledovateľov profilu mesta}}$$

We applied the city's digital communication model to three social media platforms, namely Facebook, Instagram, Twitter, which enable a high level of involvement of a city's profile followers and to all cities in the research sample. Based on the results of a city's digital communication model, we compiled an overall ranking of cities on individual social media platforms which allows them to be compared with each other. The overall level of use of the potential of social media by the city to communicate with target groups is referred to as the overall digital communication of the city on social media. It is formed by the sum of digital communications of the city on individual social media platforms:

$$DCC = DCC_{Facebook} + DCC_{Instagram} + DCC_{Twitter}$$

With the overall digital communication of the city on social media defined in this way, we abstract from the possibility that one person is a follower of the city on several social media platforms.

USE OF SOCIAL MEDIA BY CITIES

There is no doubt about the important role of communication in city branding. The development of new technologies has a strong influence on the tools, forms and channels of marketing communication. Referring to the theoretical framework of the paper, we examined the use of the following 22 social media in Slovak and European cities: Facebook, Instagram, Twitter, YouTube, Ivoox, FriendFeed, LinkedIn, Delicious, Slice, Formspring, Flickr, Google+, Customizable, Reddit, StumbleUpon, Pon, Blogger, Tumblr, Pinterest, Xing, Vimeo, Snapchat. The use of these social media by all Slovak cities and selected European cities is shown in Figure 2.

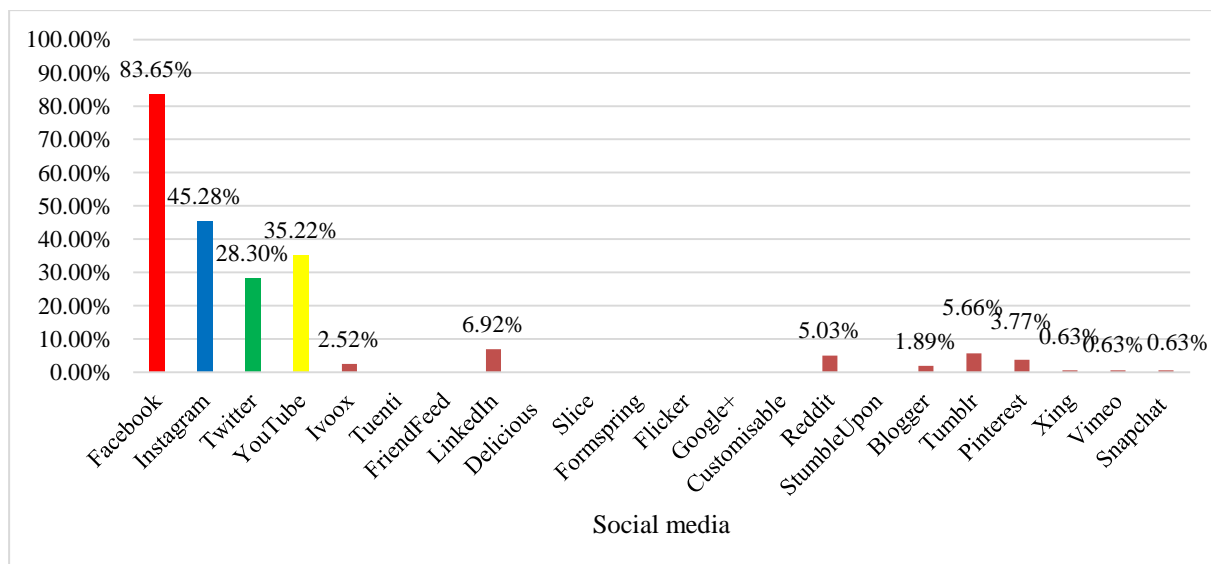


Figure 2. Use of social media by sample cities

As can be seen from the data in Figure 2, the most used social media on which cities have a research sample profile are Facebook (83.65%), Instagram (42.28%), YouTube (35.22%) and Twitter (28.30%). Less than 7% of cities have a profile on the other 10 social media platforms. Cities do not have official profiles on up to 10 social media platforms. A more detailed analysis of the use of the most used social media platforms by size categories of cities is shown in Figure 3.

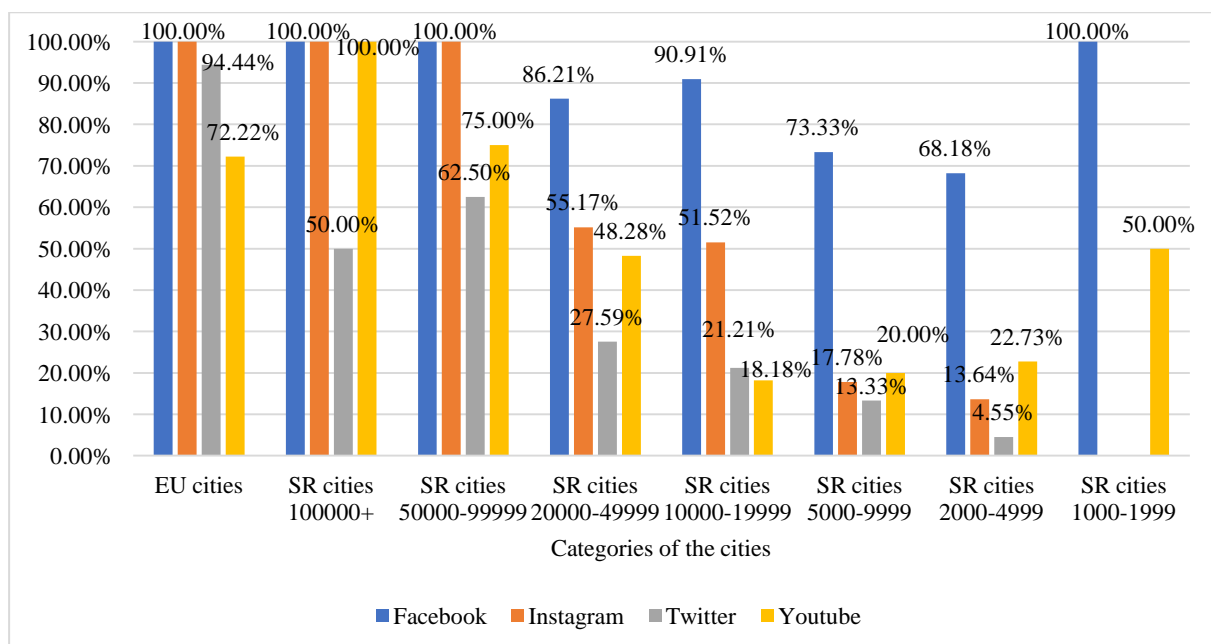


Figure 3. Use of the most used social media platforms by cities of individual size categories

The share of cities with official profiles on the platforms of the most used social media differs quite significantly in individual categories of cities and decreases with the category of city. European cities make extensive use of all 4 social media platforms; this is the same for the two largest Slovak cities, Bratislava and Košice. Bratislava and most European cities even have two profiles on social media platforms. One profile is aimed at the inhabitants of the city, the other is aimed at tourists or directly

at the presentation of the city brand. The most used social media platform in cities of all sizes is Facebook. Less than 55% of sites in categories with a population of less than 49,999 have a profile on Instagram, Twitter and YouTube. Twitter is the least popular platform in all Slovak cities.

In order to answer the question to what extent the city is able to arouse interest in reaching the target audience through its activity on the social media platform, we ranked the digital communication of cities on social media. The top 10 places placed in the ranking of digital communication of cities on the Facebook platform are listed in Table 2.

Rank	City category	City	V	I	P	A	DCC Facebook
1	7	Spišská Stará Ves	0.0110	0.0025	0.0632	0.0000	0.0768
2	7	Spišské Vlachy	0.0060	0.0012	0.0654	0.0000	0.0726
3	5	Revúca	0.0156	0.0026	0.0376	0.0000	0.0558
4	6	Šurany	0.0000	0.0043	0.0501	0.0000	0.0543
5	5	Bytča	0.0135	0.0025	0.0342	0.0002	0.0503
6	7	Tlmače	0.0039	0.0111	0.0311	0.0001	0.0462
7	4	Nové Mesto nad Váhom	0.0179	0.0014	0.0256	0.0001	0.0451
8	7	Podolíne	0.0003	0.0012	0.0421	0.0000	0.0436
9	3	Trenčín	0.0037	0.0030	0.0349	0.0001	0.0417
10	6	Gelnica	0.0085	0.0019	0.0302	0.0000	0.0406

Table 2. TOP 10 places ranking of digital communication cities on the Facebook platform

We assumed that European cities would be at the forefront of digital urban communication on all social media platforms. Our assumption was based on the fact that all the cities surveyed are ranked in the top positions within European cities in the city branding, and a high proportion of European cities have established profiles on all 4 social media platforms. Our assumption was not confirmed, as not a single European city was placed in the top ten positions of digital communication of cities on the Facebook platform. European cities occupied the second half of the ranking. London, which is ranked first in the rankings of ranked cities, was ranked last, 159th, in the city digital communication ranking on Facebook. Of the European cities, the best place in the ranking was Stockholm (84th place), followed by Madrid (89th place) and Vienna (90th place). On the contrary, the leading places in the ranking belong to cities from the smallest category of Slovak cities (2,000 - 4,999). The largest Slovak cities, Bratislava (79th) and Košice (64th), did not get to the top of the ranking. The only major Slovak town represented on the first positions of the ranking is the town of Trenčín (50,000 - 99,999).

Rank	City category	City	V	I	P	A	DCC Instagram
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Rank	City category	City	V	I	P	A	DCC Instagram
1	5	Stupava	0.0000	0.0000	0.1164	0.0000	0.1164
2	7	Brezová pod Bradlom	0.0006	0.0000	0.1764	0.0000	0.1770
3	3	Trenčín	0.0000	0.0027	0.1730	0.0008	0.1765
4	5	Handlová	0.0000	0.0007	0.1322	0.0000	0.1330
5	5	Šamorín	0.0000	0.0020	0.1027	0.0000	0.1047
6	4	Levice	0.0000	0.0004	0.0993	0.0000	0.0998
7	5	Bytča	0.0000	0.0084	0.0787	0.0000	0.0871
8	5	Kysucké Nové Mesto	0.0000	0.0043	0.0769	0.0000	0.0812
9	1	Stockholm	0.0000	0.0003	0.0798	0.0000	0.0801
10	3	Trnava	0.0000	0.0000	0.0793	0.0000	0.0793

Table 3. TOP 10 places of the ranking of digital communication of cities on the Instagram platform

The first places in the ranking of digital communication of the city on the Instagram platform were again occupied by Slovak cities of smaller size categories (mostly from the category of 10,000 to 19,999). However, two larger Slovak cities of the size category from 50,000 to 99,999 inhabitants, the cities of Trenčín (3rd place) and Trnava (10th place) were also in the top ten. As with the Facebook platform, the two largest Slovak cities, Bratislava, Košice, did not get to the first places, which, however, placed significantly better on the Instagram platform, in 17th place (Košice) and 40th place (Bratislava). One European city, Stockholm (9th place), is also on one of the first ten positions of the city digital communication ranking on the Instagram platform. London, similarly to its ranking of digital communication of the city on the Facebook platform, was again last in 159th place. Moscow placed higher than London. The remaining European cities were ranked 21-48.

Significant differences in the placings of European cities can be seen on the Twitter platform, which is used by only 28 (19.8%) Slovak cities. The order of the first 10 places in the ranking of the digital communication of cities on the Twitter platform is shown in Table 4.

Rank	City category	City	V	I	P	A	DCC Twitter
1	4	Liptovský Mikuláš	0.0062	0.0000	0.0000	0.0000	0.0062
2	1	Geneva	0.0011	0.0002	0.0029	0.0000	0.0042
3	2	Bratislava	0.0006	0.0000	0.0032	0.0000	0.0038
4	1	Moscow	0.0013	0.0002	0.0019	0.0000	0.0035
5	1	Prague	0.0002	0.0003	0.0023	0.0000	0.0028
6	1	Copenhagen	0.0005	0.0002	0.0014	0.0001	0.0021
7	1	Dublin	0.0000	0.0001	0.0010	0.0000	0.0011
8	1	Barcelona	0.0000	0.0000	0.0008	0.0000	0.0008
9	1	Frankfurt	0.0001	0.0000	0.0006	0.0000	0.0008
10	1	Vienna	0.0004	0.0001	0.0000	0.0000	0.0006

Table 4. TOP 10 places of the ranking of digital communication of cities on the Twitter platform

Out of the top ten places in the digital communication ranking on the Twitter platform, eight are European cities. Surprisingly, Liptovský Mikuláš was in first place and the capital of Slovakia, Bratislava, in 3rd place. Of the European cities, Stockholm, which was one of the most successful

European cities of digital communication of the city on the Facebook and Instagram platforms, was surprisingly ranked last. Table 5 shows the results of the placings of the examined cities within the overall digital communication of the city on social media, and which presents the use of the overall potential of social media for communication with target groups and building the city brand and is the sum of digital communication of the city on Facebook, Instagram and Twitter.

Rank	City category	City	DCC Facebook	DCC Instagram	DCC Twitter	DCC
1	3	Trenčín	0.0417	0.1765	0.0000	0.2182
2	7	Brezová pod Bradlom	0.0249	0.1770	0.0000	0.2019
3	5	Handlová	0.0135	0.1330	0.0000	0.1464
4	5	Šamorín	0.0333	0.1047	0.0000	0.1379
5	5	Bytča	0.0503	0.0871	0.0000	0.1374
6	5	Stupava	0.0042	0.1164	0.0000	0.1206
7	4	Levice	0.0129	0.0998	0.0000	0.1127
8	7	Trenčianske Teplice	0.0371	0.0744	0.0000	0.1115
9	5	Kysucké Nové Mesto	0.0150	0.0812	0.0000	0.0962
10	4	Topoľčany	0.0331	0.0604	0.0000	0.0936

Table 5. TOP 10 places in the ranking of the overall digital communication of cities

Only Slovak cities were placed on the top ten places of the overall digital communication of cities on social media. The city using the best potential of social media for communication with target groups is the Slovak city of Trenčín (50,000 - 99,999), followed by Slovak cities from the smaller size categories (with less than 49,999 inhabitants). Of the European cities, the city of Stockholm was the best, occupying 12th place. The majority of the other European cities were placed in the first half of the ranking. London was the worst of European cities, placing 123rd. The largest Slovak cities were ranked 50th (Bratislava) and 20th (Košice) in the ranking of the overall digital communication of cities on social media.

CONCLUSIONS

If we talk about city branding, we talk about the city as a product and therefore it is necessary to communicate its significant elements using a coordinated system of marketing communication so that the information reaches the target audience. The aim is to promote awareness of the city whose name is its brand and thus create the interest of the target audience in the city. From this point of view, the importance of marketing communication is undeniable.

With the development of information and communication technologies, the communication of a city brand is shifting to the virtual realm of social media, which provides the city with the opportunity to address the addressees en masse and at the same time individually, maintain their attention for a longer time and provide personalised information and ultimately get feedback. The advantage of viral

communication is that it can reach a large number of target audiences anytime and anywhere with proper management. The main idea of the article was to identify the extent to which the potential of social media platforms is being used to communicate with target groups and city branding.

In order for a city's communication on social media to be effective, it must be implemented actively, quickly, up-to-date and efficiently. A partial picture of how the city works on social media and how it uses their potential to address and arouse the interest of target groups is also provided by the city's placement in the ranking of the digital communication of cities on social media.

Within H0, we assumed that European cities would be placed at the forefront, appearing in the first places in the ranking of city brands in the EU. The opposite was true. Surprisingly, smaller Slovak cities took the top places and on all social media platforms with the exception of Twitter. Due to the fact that only 28 (19.8%) Slovak cities use the Twitter platform for their communication, mostly European cities are in the top places.

The reason that this system of communication prevails in smaller cities may also be that some activities on social networks can be automated. It is therefore not necessary to create large and expensive teams to ensure communication. In addition, communication via social media can be evaluated more easily than other forms of communication. The degree of virality and popularity of contributions, the interaction of followers and a city's involvement on the social media platform (especially in city branding), however, in our opinion does not only depend on the number of contributions published by the city, the number of city profile followers and city size, but also from the quality of published contributions, their main theme, content and form (image, video, text, competition, etc.). Another important fact is the fact that in a brand's communication programme, social media is usually not used as a stand-alone activity but is combined with other media. It is also necessary to realise that although marketing communication plays an important role in building a city brand, as it affects the recognisability of the city as a brand, it is not the only factor that affects it. The way in which the city brand is built, and the city potential have play an important role.

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THE ECONOMIC IMPACT OF COVID-19 ON ISRAEL

Schein, Andrew

Netanya Academic College

ABSTRACT

In this study, we examine the economic impact Covid-19 had on Israel's economy from the first quarter of 2000 through the first quarter of 2021. In the first half of 2020, Israel's GDP declined by eleven percent, but then the economy bounced back in the second half of 2020 almost equivalently with a ten percent increase. Israel's GDP declined again in the first quarter of 2021. The economic downturn caused by Covid-19 differed from typical recessions since due to Covid-19 people and firms were temporarily unable to spend, but Israel's government responded to the downturns with massive spending programs, which caused its budget deficit to be one of the highest in the IMF's list of advanced economies. Almost fifty percent of the increase in spending was assistance to Israeli businesses, but there is no evidence that this assistance was what caused the economy to rebound in the second half of 2020. The economy rebounded because of pent up consumer demand owing to the inability of people to spend in the first half of 2020 and the inability of people to travel abroad. Furthermore, Israel's high-tech sector flourished in 2020 independent of government support. A lesson to be drawn from this case is that increasing government debt to increase aggregate demand is not an effective policy when an economic downturn is caused by a virus, and instead it is more helpful for government aid to target people who are suffering financially as a result of the virus.

Keywords: Recessions, Economic downturns, Macro-economic policy, Government debt, Fiscal policy.

INTRODUCTION

Covid-19 began to appear in Israel in February 2020, and by the end of 2020, out of a population of 9.3 million people, there were 426,000 cases of the coronavirus and 3,359 people died from the virus. In the beginning of 2021, somewhat paradoxically, the outbreak of the virus became more severe, but at the same time Israel began an extensive program of vaccinating people against Covid-19. In January and February 2021, there were an additional 358,000 cases in Israel, an increase of more than 80% since the end of December 2020. This surge started to moderate by the middle of February when the effects of the vaccination program began to be noticeable, and through the end of May 2021 the number of people in Israel with Covid-19 has been declining.

Covid-19 had both a direct and indirect effects on an economy. The largest lost to a country is the deaths from the virus, and in Israel, as of 30 May 2021, 6,407 deaths were attributed to Covid-19. There is also the increase in medical costs to the system, the loss of days of work from the people who are sick, and the loss in sales in various companies due to people who stop going to malls, movies, restaurants, stores, and other venues due to a fear of catching the virus. In addition, there are also the indirect effects from government policies to restrict people from travelling and going about. In Israel, restrictions on movement and business were tightened and loosened for various periods of time including three periods, in April 2020 (partially began in March), in September 2020, and in January 2021 (technically started in December 2020), each around a month, of a national lockdown.

On the other hand, there were also government policies to stimulate the economy and assist people during the coronavirus. On 30 March 2020, Israel's Prime Minister Binyamin Netanyahu announced that the government would give 80 billion shekels (22 billion USD, exchange rate of 3.58 shekels to USD) to the medical system, to workers and to businesses (Rabinovitch and Cohen, 2020). Since then, the government has periodically announced various additional policies in the same vein, such as direct grants to people, extending unemployment benefits and easing condition for businesses to get grants. Overall, for 2020, the Israeli government pledged to spend 208 billion shekels (65 billion USD, exchange rate of 3.215 shekels to USD, 37% of Israel's government spending in 2019) for assistance due to Covid-19, though not all the money was spent in 2020 (Israel's Ministry of Finance, 11 January 2021, Hebrew, www.mof.gov.il).

It is difficult to untangle the direct and indirect economic effects of the coronavirus, and the government policies to stimulate the economy. Instead, we will examine macroeconomic data on Israel, GDP, unemployment, and government debt as a percentage of GDP to see overall how Israel's economy has fared from the beginning of 2000 until the first quarter of 2021. Before discussing this macroeconomic data, we will present a brief survey of several sectors of Israel's economy to give some background to Israel's economy. In the end of the paper, we will try to glean some lessons that can be learned from the Israeli government's response to Covid-19.

DATA ON SOME SECTORS IN ISRAEL'S ECONOMY

In January 2020, 3,998,700 Israelis were working, and Israel's Central Bureau of Statistics divided them into 21 categories of work (henceforth ICBS, www.cbs.org.il, 26 April 2021). The largest job categories were education (includes many religious teachers), 13% of the workers, health and social workers, 11%, wholesale, retail trade and repair of motor vehicles, 11%, army and public security, 10%, and manufacturing 10%. Of these five sectors, the sector that was most hit by the Covid-19 was the wholesale and retail trade sector, but not the repair of motor vehicles, which remained free to work

without any restrictions. Two other smaller sectors which were negatively impacted from Covid-19 was the accommodation and food services sector, which comprised four percent of the number of workers in January 2020, and the arts, entertainment and recreation sector, which comprised two percent of the workers in Israel in January 2020. This impact was particularly difficult for the workers in these two sectors since the average monthly salary of the workers in these fields was lower than the average monthly salary in almost of the other job categories (ICBS, 4 May 2020).

Not all the workers in these three sectors were negatively impacted by Covid-19. For example, food wholesalers and retailers continued their regular business hours, and there were other firms who were able to continue working regularly by selling online instead of in person. In other sectors, there were cases where the sector as a whole continued to function, but a minority of the workers in the sector were affected by the work restrictions. For example, in the construction sector, which comprised five percent of Israel workers prior to Covid-19, almost all projects continued even during the lockdowns, yet some workers, such as painters, were deemed to be “unessential workers” and had to stop working during the lockdowns. Altogether, the percentage of workers from the three sectors which were most effected by Covid-19 and its associated restriction was 17% of Israel’s workers in the labor force. Adding the workers effected in other sectors while subtracting the workers in the three sectors who were not affected by Covid-19 would change this percentage by some amount, and then one can roughly estimate that between 15% to 20% of Israel’s workers had their jobs threatened by the direct and indirect effects of the virus.

One sector that was particularly affected by Covid-19 and its restrictions was the tourist industry. The tourist industry is part of the ICBS’s work category of the accommodation sector, and can be divided between the foreign tourists and domestic tourists. In term of foreign tourists, there was almost a complete cessation of tourists due to Covid-19. In 2019, 4,551,600 foreign tourists came to Israel, and the number had been growing strongly in the previous years, a 24 percent annual increase in 2017, a 14 percent annual increase in 2018 and an 11 percent annual increase in 2019. In the beginning of 2020, all indications were that this growth rate would continue, but due to Covid-19, from April 2020 through March 2021, only 115,200 tourists came to Israel (ICBS, 7 April 2021). Correspondingly, the number of night that foreigners stayed in Israeli hotels plunged from 12,126,200 nights in 2019 to just 186,900 nights from April 2020 through March 2021 (ICBS, 26 April 2021).

This drop in foreign tourists certainly hurt anybody who was associated with foreign tourism, such as Israeli hotels, airlines, tour guides, and restaurants that catered to foreign tourists. Yet, how important is foreign tourism in Israel’s economy? Schein (2016) examined this question and found that the direct effect of foreign tourism contributed around two percent to Israel’s GDP from 2005-2013, which indicates that while the industry is not negligible, it is not a major industry in Israel.

On the flip side, while Covid-19 stopped most foreigners from coming to Israel, it also stopped many Israelis from going abroad. In 2019, the number of Israelis going abroad was more than double the number of tourists coming into Israel, 9,178,600 people, almost equal to Israel's population, and this number dropped to just 560,600 people from April 2020 through March 2021 (ICBS, 7 April 2021). This huge decline indicates a loss in consumer welfare, but it could have been a boon for Israel's economy since instead of travelling abroad, Israelis would have been forced to take domestic vacations, and/or they could have diverted spending to domestic goods, such as home improvements. With regard to domestic vacations, prior to Covid-19, the number of nights Israelis staying at Israeli hotels was a little larger than the number of nights that foreigners stayed at these hotels, 13,689,800 nights. This number declined from April 2020 through March 2021 to 5,978,500 nights, which was a smaller decline than by the foreign tourists, but still was a significant decline. We see that also the domestic tourist sector was harmed by Covid-19, but as we will see below, in the second half of 2020, there were large increases in consumer spending on durable goods which might be related consumers spending money on goods as opposed to going on vacations.

While foreign tourism is not a big contributor to Israel's economy, the high-tech sector is. Within the 21 work categories mentioned above that ICBS divides the Israeli workers, high-tech is not specifically defined, but in a different press announcement (30 January 2020) ICBS estimated that in the end of 2019, there were 111,000 employed workers producing "high-tech goods" such as pharmaceutical drugs, and parts for computer and 236,000 employed workers providing "high-tech services" such as research and development related to software and hardware. These numbers do not include self-employed workers who are active in the field. ICBS (13 May 2020) also divides Israel's exports into different groups based on their level of technology, and in 2019, Israel's exports which were considered as being high technology were 37% of total exports.

In addition to exporting goods that are considered high-tech, a notable part of Israel's economy has developed around start-up companies that attract foreign investment and if these firms are successful, then they are sold to large high-tech firms, such as Apple or Google, or more rarely, remain independent companies. Many of these companies, certainly in the beginning of the existence of these firms, have few sales of goods or services, but when they are sold to other firms, these "exits" can potentially help Israel's economy. In many cases, much of the profits from the "exits" go to the investors, which could mean that money is leaving the country if it goes to foreign investors, but the number of exits generates more investment in other "start-up" companies. The investments in "start-up" companies, even if the company is unsuccessful, supports many workers, who earn higher salaries than the median salary in Israel.

Initially it was not obvious whether Covid-19 would have a positive or negative impact on the high-tech sector. The potential negative impact was that foreigners, especially if they were unable to come to Israel to see the different firms to invest in, would reduce their level of investment in “start-up” firms in Israel. On the other hand, because Covid-19 forced people to work, shop and interact more online, this created a greater demand for “high-tech” products and services. In addition, the high-tech sector was a sector which had a relatively easier time switching to working from home than other sectors.

2020 was a banner year for Israel’s high-tech sector. In 2019, the number of funding for “start-up” companies was 8.3 billion USD, which was highest level ever in Israel and a 28% increase from 2018. In 2020, the amount of funding increased to 10.6 billion USD, another 28% increase, and set a new record (Globes, 3 Jan. 2021, en.globes.co.il). Funding for “start-up” companies has continued to grow in the first four months of 2021, as through April 2021, 7.5 billion USD was invested which was a little less than all the money invested in 2020 (Globes, 2 May 2021). We see that even though there were fears that funding for “start-up” firms would drop off due to Covid-19, in fact funding continued to increase. In addition, with regard to “exits,” while the number of deals declined from 80 in 2019 to 60 in 2020, the value of the “exits” increased from 9.9 billion USD in 2019 to 15.4 billion USD in 2020, which eclipsed the previous record of 14.9 billion USD in “exits” in 2014 (Globes, 22 Dec. 2020 quoting PwC report). These excellent numbers might not have been due to Covid-19, but Israel’s high-tech sector was not hurt by Covid-19, and continued to flourish.

This brief review of some of the sectors in Israel’s economy indicates that while Israel’s economy was not immune to the devastating impact of Covid-19 on an economy, it was much better positioned than other countries for the virus since the foreign tourism industry was less crucial to Israel’s economy than other countries, and Israel’s high-tech sector had potential for growth due to Covid-19, which it did. We now turn to look at some of the macroeconomic data for Israel for the 2020 through the first quarter of 2021.

MACROECONOMIC DATA

According to data from IMF (World Economic Outlook, April 2021), in 2019, Israel’s GDP increased 3.45%, and from 2016-2019, the annual growth in Israel’s GDP was 2.62%. Within the IMF dataset, Israel is listed as one of the 39 countries as having an advanced economy. Within this subset of countries, the growth in Israel’s GDP from 2016-2019 was the tenth highest. We see that prior to Covid-19, that Israel’s economy was doing relatively well, and in the beginning of 2020, the expectation was that the economy would continue growing approximately at the same pace as in the previous years. Covid-19 upended these expectations.

In the first quarter of 2020, Israel's GDP declined 7.1% in reference to the fourth quarter in 2019 (seasonally adjusted at annual rates, ICBS, 18 May 2021). Evidently, the restrictions, such as limits on shopping, that were starting to be put in place towards the end of the first quarter, when still few Israelis had corona, had an immediate negative effect on Israel's economy. In the second quarter, which encompassed the first lockdown, quarterly GDP declined by an astonishing 30.7%, even though by May, the first lockdown ended and businesses opened up. This decline in GDP was the largest quarterly decline in Israel's history. Combining these quarters, the decline in Israel's GDP in the first half of 2020 as compared to the second half of 2019 was 10.9 percent. These declines in two successive quarters mark an official recession, and was the first recession for Israel's economy since the fourth quarter of 2008 and the first quarter of 2009. This decline of 31% in Israel's GDP in the second quarter might have indicated that Israel's economy was in a severe depression due to Covid-19, but the economy bounced back quickly.

In the third quarter, although the second lockdown began in the end of the quarter on September 18, there was a complete reversal of Israel's economy, as Israel's GDP increased 42.4% in the quarter (at annual rates). This rebound was in all sectors of the economy, with consumption having the largest increases. Per capita consumption of durable goods increased 264% and per capita consumption of semi-durable goods increased 123%. These increases were due to pent-up demand and apparently since Israelis were unable to spend money on travelling abroad and on entertainment within Israel, they bought durable goods. Even though most durable goods in Israel are imported, imports decreased one percent in the quarter, which means that either these purchases were from domestic producers of durable goods or more likely, the goods had been imported in the beginning of the year and had remained in inventory due to the falls in consumption in the first two quarters. In addition, the residential housing industry which had come to a halt during the first lockdown in April 2020, increased 77% in the third quarter of 2021. In the fourth quarter, which began in the middle of the second lockdown, the growth from the third quarter continued though at a much lower rate with quarterly GDP increasing 6.3%. In this quarter imports increased 87% and exports decreased both factors that reduced the rate of growth in the quarter. The overall change in Israel's GDP for second half of 2020 was a positive 10.3 percent, a little bit less than the decline in the first half of 2020.

Altogether for 2020, according to the IMF data, Israel's GDP declined 2.38%, and this was the first annual decline in Israel's GDP since 2002, which shows that Israel's economy was harmed by Covid-19. Yet, relatively Israel's economy was more successful than other economies since within the subset of 39 countries the IMF lists as advanced, the decline in Israel's GDP for 2020 was smaller than for 32 other countries in this group of nations. A possible reason for this relative success is the reasons

discussed above with regard to Israel's high-tech sector and the relative lack of importance of foreign tourism to Israel's economy.

In the first quarter of 2021, Israel's economy had been expected to grow, but according to the data from ICBS (18 May 2021), which will likely be revised, Israel's GDP decreased by 6.5% (Ben Simon, 2021). The large decline in GDP in the first quarter of 2021 was a larger decline than in the Euro area (-2.5%) and in the US there was an increase in GDP in the first quarter of 2021 (6.4%), *Economist*, 8 May 2021, p. 76.

The decrease in Israel's GDP in the first quarter of 2021 occurred partially due to the third lockdown in the beginning of the quarter and the large increase in the rates of infections of Covid-19 in the quarter, but still this decline was different than the declines in the first two quarters of 2020. In the first two quarters of 2020, consumption declined by 23% and 45% respectively, while in the first quarter of 2021, consumption only declined by 3.2%, and even this decline was a quirk. There was a large decline in car imports (86%) due to a change in taxation, which caused more cars to be imported in the fourth quarter of 2020 and less in the first quarter of 2021, and without this decline, consumption would have increased by 7.2%. It should be noted that Israel does not produce cars, but still part of the price of cars is the taxes on the car, which is counted in GDP, and the services of the Israeli importer. If one would remove the import taxes from the GDP calculations, then still Israel's GDP would have declined in the first quarter of 2021, but then only 2.5%. The fact that consumption would have risen except for the decline in car imports, implies that Israeli consumers had adjusted their shopping in the first quarter of 2021 to be more online and then even with the lockdown, consumption of most goods continued to grow. Instead, the decline in GDP in the first quarter of 2021 was due to a fall in investment and government spending. The decline in investment had also occurred in the first two quarters of 2020, but government spending had increased in the second quarter of 2020, as part of the plan to prop up the economy.

Overall, if we compare Israel's GDP in the first quarter of 2021 with Israel's GDP in the fourth quarter of 2019, prior to the Covid-19, Israel's economy declined, either 5.35% if the data is not seasonally adjusted or 2.3% if the data is seasonally adjusted. While this data from the first quarter of 2021 and from 2020 will likely be revised, these numbers are a first estimate of the total effect of Covid-19 on Israel's economy. We see that Covid-19 had a negative effect on Israel's economy, but it was not a catastrophe. Yet, to people who lost their jobs, COVID-19 was very damaging. We now will look at the changes in unemployment rates in Israel due to Covid-19.

When Covid-19 arrived in Israel, Israel's economy was either at full employment or close to it, as the unemployment rate was just 3.2% in February 2020 (ICBS, 25 March 2021). This rate had been declining since 2012 when it had been seven percent. The unemployment rate did not increase that

much due to Covid-19. From February 2020 to March 2021, the highest monthly unemployment rate was 5.4 percent in August 2020, and in March 2021, the unemployment rate had fallen to 4.7 percent. These numbers seem to show that Covid-19 had relatively little effect on the number of unemployed people in Israel, but this is due to how unemployment is measured.

Unemployment is measured as the percentage of people who not working and who are looking for work as percentage of total number of people in the labor force. This definition means that if a person is not working and is not looking for work, then the person is not counted as being unemployed. This is very reasonable since if a person is not searching for a job then this would seem to imply that the person does not want to work. However, at times a person stops looking for work, though he or she still wants to work, and this person would not be counted as being unemployed according to the official definition of being unemployed. This decision to stop looking for work could be the case by people who are discouraged from process of finding a new job, or when workers are furloughed. In this latter case, the worker is temporarily absent from his or her job, and the worker may not look for another job since he/ she thinks that they will soon return to their old job.

In Israel, almost immediately with the outbreak of Covid-19 in March 2020, many firms furloughed workers. For example, the clothing chain stores in Israel, Hamashbir furloughed 4000 workers and Castro furloughed 6,000 workers (Dovrat-Meseritz, May 2020). Altogether, the number of people seeking assistance from Israeli government's employment service increased from 25,576 people in February 2020 to 503,915 in March 2020, and it is estimated that around 89% of these people who turned to the service in March 2020 had been furloughed (Klingbail, Sasson and Rochvarger, 2020).

The decision to furlough workers instead of firing them was because the restrictions due to coronavirus were thought to be very temporary, and was encouraged by a decision by the government to allow workers who were furloughed to receive unemployment benefits immediately from the day they were furloughed, while previously these benefits were only available to people who had used up all of their vacation days. The idea was to help the workers, and also firms to reduce their costs by furloughing workers in light of all the restrictions that curtailed the ability of the firms to function. The government also kept extending the length of time a person who was furloughed could receive unemployment benefits, and as of the end of May 2021 it is until June 2021.

Most of these furloughed workers did not have an incentive to search for new jobs since it was believed that the restrictions due to Covid-19 would be temporary. Based on the usual definition of unemployment, these workers would not be counted as being unemployed, and hence Israel's unemployment rate was little changed due to Covid-19. However, Israel's Central Bureau of Statistics created an expanded definition of the unemployment rate to include the furloughed workers. This

expanded definition has three different groups of people who were not working: One, the standard group of people who are not working and looking for a job, two, people who were absent from work due to Covid-19, the furloughed workers, and three, workers who were either fired or their company was closed starting from March 2020 even if they are not looking for work.

With this expanded definition, in the first half of May, the unemployment rate in Israel was 26.6%, much larger than the standard measure of unemployment. This expanded rate declined with the end of the first lockdown, and by the beginning of September, this unemployment rate was 11.5%. Afterwards, with the second lockdown in the middle of September, the rate jumped up to 19.1% since with a new lockdown there was another wave of workers who were furloughed. After the second lockdown ended, the rate again fell to 12.7% in the first half of December, but then there was another lockdown, and rate jumped again in January 2021 back to 19.1%. Following the same pattern as before, when the lockdown ended, the expanded rate of unemployed decreased to 10.6% in April 2021.

These two different measures of unemployment are confusing, and give two different perspective on the effect of Covid-19 on Israel's labor market. For sure the people who lost their jobs, and received unemployment payments that were insufficient to raise their income levels to the levels that it was before Covid-19 have suffered due to Covid-19. However, it is possible that some of the workers are voluntarily not seeking new work due to the government benefits, and evidence for this is that in April 2021, there were 130,000 vacant jobs, while before Covid-19 there were less than 100,000 monthly vacant jobs (Levi-Weinrib and Ben-Simon, 2021)

An additional question of the higher expanded unemployment rate is whether the jobs losses will be a temporary or permanent? Will all the furloughed workers return to their or will companies realize that they can function without bringing back these workers? In anticipation that many of these furloughed jobs will not return after Covid-19, the Israeli government has attempted to enhance training programs to retrain workers to work in different fields, but many of these programs are unsuccessful. If many of these furloughed workers remain permanently out of the workforce, then this will be a large loss to Israel's economy, while if almost return to their previous employment or find other work, then this would mean that the negative effects of Covid-19 on Israel's workers were limited and temporary.

The government efforts to pay the furloughed workers unemployment benefits immediately after the workers were furloughed was just one of the efforts of the government to soften the economic effects on Covid-19 on Israel's population. These efforts were not cheap, and they have considerably increased the Israeli government's deficit and debt.

From 2010 to 2019, Israel's overall government debt as a percentage of GDP had been declining from 71% of GDP to 60% (IMF, April 2021). Correspondingly, the structural deficit of Israel's government's budget fluctuated from a low of minus one percent in 2015 to a high of minus 4.2 percent in 2013 during the years 2010 through 2019. Since the low figure in 2015, the structural deficit had been rising each year and in 2019, it was minus 4.1 percent. We see that in the years prior to Covid-19, there had been a slight increase in government deficits as a percentage of GDP, but still the overall debt ratio declined. These numbers changed significantly due to the government's spending in response to Covid-19

Israel's Ministry of Finance (11 January 2021) estimated that in 2020 Israel's government was 11.7% of Israel's GDP. Around 80% of the jump in the deficit from 2019 was due to the government programs to assist people due to Covid-19, and the remainder was due to a fall in tax revenue due to lower incomes and a decline in GDP. Similarly, the IMF estimates that Israel's government structural deficit in 2020 will be minus ten percent. Within the 39 countries that the IMF lists as advanced, the IMF provides estimates for the structural budget for 36 countries, and among these countries, only Hong Kong, Japan, Norway, and the United States had higher structural government deficits than Israel in 2020. The increase in Israel's government deficit also meant that Israel's government debt increased to 73% of Israel's GDP erasing all the reduction that transpired from 2010 to 2019.

Was this government spending effective? Did the spending lessen the impact both health wise and economically from Covid-19? In order to definitely answer these questions, one would need to detail each aspect of the government's spending, which is beyond the scope of this paper. Instead, we will briefly examine the different categories of the government programs.

Israel's Ministry of Finance (11 January 2021) divided the allocated money into four categories: Health and civilian (mostly education) services, socio-economic benefits, assistance to businesses and development of the economy. This last category was the smallest, less than five percent of the pledged money, and consisted of several projects the government tacked on to the coronavirus packages unrelated to Covid-19, and we will ignore this category.

The first category was also not a large portion of the government funding, 12.4% of the pledged money, and a large part of this money went to Israel's Health Ministry, who spent the money on buying supplies, drugs and vaccines, the cost of hospitalizations and corona testing (Linder, 2020). In this case, there was clearly some waste, as for example the government bought many respirators in the beginning of the crises that was never used, but in the beginning of the crises, it was difficult to know how the crises would unfold. As of March 2021, Israel paid around 800 million USD for the vaccines against Covid-19, and it is claimed that Israel over paid for these vaccines, but the vaccines have enabled the country to almost return to normal by June 2021 (Amit 2021; Griver 2021). One of the

most curious expenses in this category was money the government spent to house people who were in isolation in hotels since they it was claimed that they could not be properly isolated in their homes. The government spent around 550 million shekels (0.3% of the pledged money) on this program for twelve hotels that provided these services, and for these hotels this income effectively replaced the loss of income from the absence of domestic and foreign guests (Rozenberg-Kandel, 2021).

The second category of government expenses due to Covid-19 was for socio-economic benefits, and this was almost 36% of the pledged money. While for sure there were people who needed assistance, in general the government doled out money without attempting to determine who actually needed the money since it was claimed that this would take too long to make these determinations. Furthermore, as mentioned above, it is argued that the generous benefits are a reason why some people have not returned to even looking for a job. This is always the problem with unemployment benefits, how to help people in need without causing inefficiencies in the economy. In this case, the government seemed to have acted as if there was no cost to giving out the money and the basic defense was that the US also gave out money (Zaken 2021).

The fourth category, aid to businesses was the largest category of government aid, 47%, and this assistance is the hardest to justify. The idea of the business assistance was to help firms who were having a hard time due to Covid-19, but again there was little differentiation between the firms that needed assistance and those who were succeeding despite corona. In one case, a clothing store chain received a grant from the government of thirteen million shekels and then proceeded to distribute generous dividends to the owners of the firm (Klingbail and Arzan, 2020). This created a minor uproar and the company returned the grant. The government tried to adjust its grants, but this case indicates that a large part of the assistance was to businesses whose owners did not need the money. It was also noted that due to the grants businesses who should have closed in normal times since they were unsuccessful were staying open officially during the corona period to receive the government assistance. For example, in the months of June through September 2019, 11,175 firms closed down, but during the same months in 2020 only 5,417 firms closed (Dovrat-Meseritz, October 2020). These unsuccessful firms who were remaining in business just to get government aid would be a negative effect to Israel's economy from the government assistance.

These government programs were all funded by the Israeli government taking on more debt which means that in the future, the government will have to pay back the debt. These payments will take a longer portion of the government budget, which in 2019 was 5.5% of government spending (ICBS, 20 September 2020) and unless the economy can grow at a rapid enough pace, lead to higher taxes. While according to the OECD (2020) Israel's overall tax burden is 31% of GDP which is lower than the OECD average of 34%, still increases in taxes is both a drain on the economy and could lead

to a drain brain with regard to people who work in the high-tech sector. These workers can relatively easily find similar well-paying jobs in other countries, and if the tax burden increases this might induce them to leave Israel. Or if taxes are raised on corporations, then this could reduce the incentive for foreign firms to invest in Israel. Thus, the increase in debt due to Covid-19 has a potential to stifle Israel's economic growth in the ensuing years.

One might justify these potential future negative impacts on Israel's economy from the gains to the economy from the Israeli government's spending to offset the negative impact of Covid-19. There is no evidence that government assistance with regard to Covid-19 had any effect on the high-tech industry. Was the large recovery in the third and fourth quarters of 2020 due to government assistance? As mentioned above, most of the recovery was due to pent up consumer demand for goods and homes. Some part of this consumer demand could have related to the government's socio-economic spending, but this is not simple to quantify. On the other hand, while the spending on aid to businesses helped the owners of the businesses, in many cases these owners had sufficient resources to overcome temporary falls in income due to Covid-19, and consumer spending would have rebounded without the government aiding the businesses. This suggests that the government should have just funded increases in spending for health resources and better targeted aid to people. This would have minimized the increase in the debt, and the state of the economy would have been in a similar situation.

Why did Israel's government give such large support to businesses and increase the government debt? One answer could be due to political pressure and lobbying of several large firms. The government was not in a strong position since from April 2019 through March 2021, Israel has had four national elections with no definitive outcome. With the possibility of elections always looming, this makes the caretaker government more susceptible to lobbying and pressure, while the costs of government spending are in the distant future.

A second possible reason for the Israel's government response was that the government was following standard Keynesian policies to boost aggregate demand and increase the debt when there is a recession, but was Covid-19 like other recessions? The economic downturn due to Covid-19 was not because people and firms decided to cut back on their spending, but it was because people were temporarily unable to spend money. Once this temporary barrier was ended, then the spending bounced back. Initially in March 2020, it was thought that the restrictions were going to be temporary, but still the Israeli government decided then to give 40 billion shekels (11 billion USD) of aid to firms and to give financial grants to all citizens without even attempting to distinguish between people who were harmed by Covid-19 and who were not. Apparently, the idea was that if the government immediately enacted a large program, then the crisis could have been headed off at the start. Yet, in

this case the economic crisis was dependent on how fast the coronavirus would spread, and trying to stimulate the economy was not going to enable people to spend on goods that were sold at stores which were closed due to Covid-19. Accordingly, in the case of recession caused by a virus, which admittedly is a unique case, the lesson to be learned is that the government should temporarily assist the people who are temporarily harmed by the virus, and not freely distribute aid to businesses or to people.

CONCLUSION

The Israel economy experienced huge shocks both negative and positive due to Covid-19, with the economy declining sharply in the first half of 2020, then almost recovering completely in the second half of 2020, and then falling again in the first quarter of 2021. These gyrations only slightly worsened the standard definition of unemployment in Israel, but led to many workers being furloughed. The Israeli government has generously tried to assist these workers and many businesses as well. While the money spent to assist workers helped the recipients of the aid, it seems that the government assistance to business was not productive since it had a limited and possibly overall no effect on Israel's economy. Yet, the increase in debt from the government spending will likely lead to higher taxes in the future. It will be several years before a full assessment can be made of the benefits and costs of the Israeli government spending in response to Covid-19, but from the analysis presented here, fifteen months after Covid-19 appeared in Israel, there is a not insignificant probability that the government's spending due to Covid-19 will overall harm Israel's economy and its citizens.

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LOVE AND LIES ON ONLINE DATING PLATFORMS IN CORONAVIRUS TIMES: LOVE, HONESTY, TRUST, LIES AND DECEPTION

Schinzel, Ursula

Unicaf University, Larnaca, Cyprus

ABSTRACT

This study is about love, honesty and trust and to a lesser extent about lies and deception on online dating platforms in coronavirus times. It has to be pointed out clearly that this research is about 'love' and 'lies', 'trust' and 'deception', contrary to the extant literature, being mainly about 'lies' and 'deception' (Markowitz and Hancock, 2018). The research question is: Did the Coronavirus pandemic influence dating habits, lies, trust propensity, yes or no, and if yes, how? It links digitalisation in dating practices (Markowitz and Hancock, 2018), to research about interpersonal trust propensity (Klein Woolthuis, Hillebrand, & Nooteboom, 2005), negotiation (Stefanidis, Banai, Schinzel, Shetach, Shakirova, Erkus, Goelzner and Ozbek, 2017), culture (Hofstede insights, 2021), and ethical decision-making (Craft, 2013).

A proposition is made: Daters have changed their dating habits, resulting in an increase in digitalisation of contacts, adapting their lying culture to the new digital reality. Instead of meeting in person as before the pandemic, in restaurants or bars or pubs, daters were more inclined to meet digitally, preferring meetings via Zoom, Microsoft Teams, Skype, or going for a walk and meeting outdoors.

During and after the pandemic, the big winners are computers, mobile phones, outdoor gear, walking and running shoes and bicycles and bicycle gear. While previous researchers focus mainly on 'lies' and 'deception' (Markowitz and Hancock, 2018), this paper is mainly about 'love' and 'trust', less about 'lies' and 'deception'.

Keywords: Mobile Dating, Love and Lies, Trust and Deception, Truth and Lying, Honesty, Coronavirus, Online Dating Platforms, Romantic Relationships, Digitalisation, Culture, Hofstede, Negotiation.

INTRODUCTION

This study is about love, honesty and trust as well as lies and deception on online dating platforms in coronavirus times. The research questions are: Did the Coronavirus pandemic influence dating habits, yes or no, and if yes, how? What do people lie about most on online dating platforms in coronavirus

times? Did the coronavirus pandemic change the lying habits of online daters? Do they lie differently or are they honest and loving? The contribution to knowledge is: Online dating platforms have experienced an increase in use during coronavirus times compared to meeting in person. Because of social distancing measures during the pandemic, daters/users prefer to rely on social media, notably online dating platforms for finding other daters. This research is new (Summerland, 2020, 2021) and paves the way for similar research in future. As researchers agree that this will not be the last new virus, daters are advised to adapt their dating habits to the new situation, switching from dating in person to online dating. This research is about digitalisation in dating practices (Markowitz and Hancock, 2018), linking it to research about interpersonal trust propensity (Klein Woolthuis, Hillebrand, & Nooteboom, 2005), negotiation Stefanidis, Banai, Schinzel, Shetach, Shakirova, Erkus, Goelzner and Ozbek, 2017, culture (Hofstede insights, 2021), and ethical decision-making (Craft, 2013). Method: This is qualitative research. From February 2020 until December 2020, the author first contacted 131 people (men) in writing via an online platform, then, secondly contacted 56 daters by phone and thirdly and finally met with 12 respondents once, 5 twice, 2 three times and 1 several times. The author also interviewed 7 other users of both genders in semi-structured interviews asking them mainly: Did the coronavirus situation change dating habits? In a second phase, the author asked 36 daters: What aspects did users mainly lie about on online dating platforms during coronavirus times? Do they use different lies? 34 daters out of the 36 responded. A proposition is made: Daters have changed their dating habits, resulting in an increase in digitalisation of contacts, adapting their lying culture to the new digital reality. Results: Data analysis found the following results. The situation resulting from the coronavirus pandemic changed dating habits primarily in contact habits, showing an increase in digitalisation. Instead of meeting in person as before the pandemic, in restaurants or bars or pubs, daters were more inclined to meet digitally, preferring meetings via Zoom, Microsoft Teams, Skype, or going for a walk and meeting outdoors. During and after the pandemic, the big winners are computers, mobile phones, outdoor gear, walking and running shoes and bicycles and bicycle gear. It has to be pointed out clearly that this research is about 'love' and 'lies', and it is about 'trust' and 'deception'. While previous researchers focus on 'lies' and 'deception', the results in this study show, that contrary to former studies and contrary to the initial research idea, this paper is mainly about 'love' and 'trust', less about 'lies' and 'deception'.

Contrary to Markowitz and Hancock (2018) who collected mobile dating deceptions from the discovery phase only, meaning, only from the conversation period when daters communicate after a profile match, but *before* a face-to-face interaction, this research includes also the face-to-face interaction. It covers the entire phase from the moment daters enter the online dating platform,

including the initial contacts via writing on the platform, to first telephone contacts and all the way until the first, second or third or more meeting in person.

Markowitz and Hancock (2018) research mainly 'deception', while this current research researches not only 'deception', but also 'trust', not only 'lies', but also 'love'. Indeed, it is about 'love' and 'lies', about 'trust' and 'deception', about 'honesty' and 'dishonesty'.

These attributes are to be found also in negotiation, as studied by Banai, Stefanidis, Shetach, and Ferhet (2014). They are also found in a 2016 study, which included the author together with Stefanidis, Banai, Schinzel, Shetach, Shakirova, Erkus, Goelzner and Ozbek (2017), on negotiation and ethical propensity combined with the role of trust. Negotiations are much like intimate relationships, where the nature of decision-making, the finalisation of agreements and of relationships may vary depending on a number of factors, such as culture (Hofstede Insights, 2021), ethical decision-making (Craft, 2013), and interpersonal trust propensity (Klein Woolthuis, Hillebrand, & Nooteboom, 2005). Cultural diversity, notably Hofstede's cultural dimensions, play an important role in the decision making process (Hofstede Insights, 2021) of daters, where cultural influences on personalities (Triandis and Suh, 2002) gain influence in the negotiation process among daters, and where culture will have an effect on deception (Triandis, Carnevale, Gelfand, Robert, Wasti, Probst, Schmitz, 2001).

In a new encounter, just like in a new business negotiation, trust needs to be developed, slowly, taking time, but also leading to distrust (Lewicki, McAllister, and Bies, 1998). Each new approach contains risk and a new trust for the problem solving approach (Mintu-Wimsatt Garcia, and Calantone, 2005) in every new encounter, including cross cultural differences and the risk of deception (Olekalsns, and Smith, 2009).

LITERATURE REVIEW

In recent months, online dating has become the subject of interest of research (https://scholar.google.com/scholar?hl=en&as_sdt=0%2C31&q=on-line+dating&btnG=) and

(https://scholar.google.com/scholar?hl=en&as_sdt=0,31&q=lying+on+online+dating+platforms).

Contrary to Markowitz and Hancock (2018) who collected mobile dating deceptions from the discovery phase only, which means only from the conversation period when daters communicate after a profile match, but BEFORE a face-to-face interaction, this research includes also the face-to-face interaction. It covers the entire phase from the moment daters enter the online dating platform, including the initial contacts via writing on the platform, to first telephone contacts and all the way until the first, second or third or more meeting in person.

In a first study, Markowitz and Hancock (2018) found that two-thirds of lies are due to *impression management*. This covers lying about items of 1) self-presentation such as age, height, weight, and

showing 2) photos 10 and more years younger, and 3) availability, marital status and professional occupation. In a second study, they found that 7% of the dating messages were deceptive. Most daters lie to make themselves more attractive.

Deception in online dating has been subject to research for the following 3 reasons: 1) by Corriero and Tong (2016) about how people misrepresent social information, 2) by Hancock and Toma (2009) about how online appearances compare to offline appearances, and 3) by Ranzini and Lutz (2017) about the relationship between personality characteristics and deception.

a) *Impression management* has the objective to appear more attractive to the partner, by modifying profile information in three areas 1) physical attributes, 2) personal interests, 3) photos (Toma, 2015). Making the 'self' more attractive is the main objective, using impression management strategies such as photos which are not recent, nor authentic, making daters younger, taller (mostly men), and slimmer (mostly women). Ellison, Hancock and Toma (2012) compare the technique of online dating to job interviews, saying the settings are similar.

The first impression management goal for daters, after the first self-presentation and the self-enhancement phase, should be to be *romantically available and desirable*, say Ellison, Heino and Gibbs (2006).

The second impression management goal for daters should be the decision *whether to meet in person or not*.

b) *Availability management* is the next strategy for daters, nobody wants to appear too desperate by being always available, mobile communication makes it possible to control constantly the other's availability. However some daters lie about their marital status, pretending to be single, while being married and therefore not being available at all.

c) *Truth management* is the following strategy for daters. In everyday life it is already difficult enough to detect if somebody tells the truth or a lie and this is even more difficult to find out in online conversations. Deception is originated by lies, told by the partner, knowing that it is difficult to collect enough information about a person to be able to make the right judgement. This is the *Truth-Default Theory* of Levine (2014).

d) *False consensus effect* is another strategy for daters. Epley (2015) shows that daters estimate the actions of other daters based on their own behaviour. The more they lie themselves, the more they estimate the partner also lies.

While most of the publications in the literature about "lying in dating" (https://scholar.google.com/scholar?hl=en&as_sdt=0%2C31&q=lying+in+dating&btnG=) look into differences based on personal characteristics, such as gender, age, education, marital status and physical attractiveness, this current research also looks into intercultural research following Geert Hofstede (2021), cultural influences on personalities (Triandis and Suh, 2002), on negotiation (Banai, Stefanidis, Shetach, and Ferhet, 2014), and (Stefanidis, Banai, Schinzel, Shetach, Shakirova, Erkus,

Goelzner and Ozbek, 2017), and trust (Lewicki, and Wiethoff, 2000). Others are examining various personality types that are measured based on the Big Five, needing information about personality. (Lim, A. G. Y., 2020) <https://www.simplypsychology.org/big-five-personality.html>

The author states a proposition. Daters have changed their dating habits, resulting in an increase in digitalisation of contacts, adapting their lying culture – not the same as national culture as suggested by Hofstede and others but more a norm than a culture – to the new digital reality.

METHOD

The author registered on an online dating platform in February 2020 and is still registered while writing this research paper. This is an ongoing, qualitative study. From February 2020 until December 2020, the author first contacted 131 people (men) in writing via an online platform, then, secondly contacted 56 daters by phone and finally thirdly met with 12 respondents once, 5 twice, 2 three times and 1 several times. The author interviewed 7 other users of both genders in semi-structured interviews asking them mainly: Did the coronavirus situation change dating habits? What aspects did users mainly lie about on online dating platforms during coronavirus times?

In a second phase, the author asked 36 daters: Did coronavirus change the lying habits? 34 daters out of the 36 replied.

Replies were in English, German, French, Dutch, Italian, Luxembourgish, and Spanish, were translated into English and back translated to check for consistency.

The research questions are:

Research question 1: Did the coronavirus pandemic change the lying habit of online daters?

Research question 2: What do people lie about most on online dating platforms in coronavirus times?

Research question 3: Did the Coronavirus pandemic influence dating habits, yes or no, and if yes, how? (Where are questions about love, honesty, trust?)

The author wrote a book under a pseudonym about her experiences on the platform. This current study is a continuation of the book publication, now concentrating on 'love and lies', not only on 'love', but also on 'lies', linking 'love and lies' to negotiation, trust, ethics, and culture following Geert Hofstede (Hofstede Insights, 2021). The author concentrated her research on the following research question: "Did the coronavirus pandemic change the dating habits of online daters?"

RESULTS

Research Question 1:

What do people lie about most on online dating platforms?

Data analysis found the following results. The situation resulting from the coronavirus pandemic changed dating habits primarily in contact habits, showing an increase in digitalisation. Instead of meeting in person, in restaurants or bars or pubs, daters were more inclined to meet digitally, preferring meetings via Zoom, Microsoft Teams, Skype, or going for a walk and meeting outdoors.

It is strongly emphasised that this research is about 'love' and 'lies', and it is about 'trust' and 'deception'. While previous researchers focus on 'lies' and 'deception', the results in this study show, that contrary to the former studies, this paper is mainly about 'love' and 'trust', less about 'lies' and 'deception', contrary to the initial research idea. The outcome of 34 replies out of 36 contacted daters was a surprising response for the author, a testimony of 'love' and 'trust', together with the replies given when most respondents said "I am not lying here, I am being honest".

Even though it is difficult to find out when daters tell the truth and when they lie, those users who lied would mainly lie about the attributes such as their name, their gender, their photo, their age, their social status, their salary, or their marital status, resulting in deception with the other. Nearly no one replied with the true amount to the salary question. Other subjects that users would lie about include alcohol and smoking, in particular, and any other characteristics like profession, sports activities, hobbies and so on. To a lesser degree, other subjects may include sex, abuse, death in the family and crime. Although it must be restated that it is difficult to ascertain exactly when they lie.

Coronavirus did not change the lying habits in these domains. It did not change the deception either. However it changed contact habits through social distancing. Digital methods have become the preferred meeting means.

Although it is difficult to believe, because it is challenging to check and prove, it is to be said that many daters do NOT lie about anything, not about their salary, about their weight and height or about death in their family. They are trusting and trustworthy, they say the truth about themselves, about their availabilities, and even their photos are genuine. They are honest and sincere, and honestly and seriously looking for an honest and serious new partner. Unbelievable but true, the author had contact with 34 of these honest daters who pretended they hadn't lied or said anything which was not true? 5 even got upset about the presumption they were not truthful.

Here is their most frequent reply:

"I am not lying here, I am honest. I am seriously searching for a partner here." However, this is a general statement that does not tell anything about their true motives.

However, those who lie would lie about the following points.

In general:

- Their gender (Women who pretend to be men and vice versa.)
- Their profile photos
- Their name (Showing one name on the platform and using another name upon meeting. The author did the same.)
- Their age (Difficult to check without access to identity documents).
- Their salary. (As above, verification of this is problematic as one cannot go and talk to HR at their place of work.)
- Their 'availability' (This means their marital status, not if they are free to meet but if they are single or not, or still in an emotional relationship or not.)

They would also lie about:

- Alcohol consumption
- Smoking.

And:

- Other characteristics (Such as their true motive for being there, just looking for a free 'hotel', a free overnight stay, for avoiding traffic jams as cross-borderers. Or about animals they have or do not have, about preferences for spending vacation or free time.)

More delicate subjects are:

- Sex (This means lying about the importance of physical, sexual activity in a relationship and sexual preferences.)
- Abuse (These traumatising events in the past often represent a hindrance for future new relationships. Although, in the first place, they would NOT talk about having been abused in the past at all, only later mention it in a second or third encounter.)
- Deaths (Like abuse, fatalities represent a traumatising event in the past with often negative impacts on future relationships. If a loving partner has recently passed away, it is difficult to replace him or her entirely.)
- Crime. C

Research Question: What did coronavirus change in dating habits?

34 daters responded out of the 36 asked.

33 said, they changed their dating habits because of the following reasons.

They dated online, digitalisation was the number one solution (25). They had not dated anybody since the start of the pandemic (17) while others stated "We are in lockdown, we cannot go out of our homes (7). Others said it was impossible to meet in public places, because they are closed (6). Of those who met, they stated that if they met somebody, they went for a walk or a bike ride (5). A small

number pointed out that it was not safe to meet a complete stranger in your or their apartment or house, therefore private meetings were not recommended (4). One respondent said that he didn't change anything (1).

Table 1: Changes in dating habits

Changes in dating habits	N (N total 34) multiple answers were possible
I changed my dating habit	33
I dated digitally / online	25
I have not dated anybody since the start of the pandemic	17
We are in lockdown, we cannot go out of our homes	7
It is impossible to meet in public places because they are closed	6
I went for a walk or a bike ride for the first meeting	5
It is not safe to meet a complete stranger in your or their apartment or house, therefore private meetings are not recommended	4
I did not change anything	1

Below are some quotes from respondents.

R1: "Yes, encounters are rarer. Additionally, with the curfew, encounters are shorter, chances to achieve something are reduced."

R2: "It is because of Covid19 that I have not had one single encounter in person. Only by Messenger or by FaceTime. As we in France are confined, we are not allowed to go further than 20km away from home, it is very complicated. Also, all the cafés and restaurants are closed and it is not possible to find a convenient place for the first encounter and discuss face to face."

R3: "Yes, coronavirus changes the world and the habits of people profoundly. In every domain the internet is the winner of this situation. Despite nobody wanting to admit it, online business is seeing an incredible increase. With all the limitations in real life I think online dating services are booming. And this because people are looking for contact and communication, and since they are not allowed to leave their homes or to encounter somebody in person.... especially in winter with the long dark evenings and the impossibility of organising outdoor leisure activities. In addition, the Christmas markets are missing, it is an unusually silent Advent time. Nobody knows exactly how Christmas and New Year's Eve will be. We cannot meet in person, not even for a cup of coffee or for a pizza with wine. This is a pity, as I would rather prefer a personal conversation."

R4: "Of course everything has changed. It is not even possible to simply meet spontaneously for a coffee in public. Ok – it is possible to go for a walk. But would you meet an unknown man alone in your or his apartment? Ok, it is possible to telephone, that's an option. May I ask, why you ask this? I am an honest person, I am not a liar. I am seriously looking for a serious new partner."

Research Question: What do people lie about?

Out of the 34 respondents of the 36 asked, 28 said, they would NOT lie, 15 said, that some people lie about different facts, like photos or other characteristics such as name, age, weight, height, availability, marital status, income, or their real purpose on the online dating site.

Table 2: What do daters/people lie about?

What do daters/people lie about?	N (N total 34) multiple answers were possible
I do not lie	28
Some people lie about different facts like photos or other characteristics like name, age, weight, height, availability, marital status, income, or their real purpose on the online dating site.	15

Concerning this question, below are some quotes.

R1: "I cannot tell if the truth also suffers because of coronavirus. I am convinced that on the dating sites there is always a lot of lying. Maybe people, because of coronavirus, have more time to reflect or fantasise and probably cannot distinguish any longer between what is true and untrue. On the other hand, it is my opinion that in the anonymity of the internet there exist a lot of people who let their fantasies and imaginations free run ... while getting rude and cheeky. Why do you ask? Have you had such experiences? What are you doing these long dark winter evenings?"

R2: "How on earth do you get this idea? I am here with serious intentions and wouldn't know why I should be lying!"

R3: "False identity and also a fake photo!"

R4: "Anyhow, it's been a while that I have met a woman. You?"

R5: "Liars exist everywhere. I do not necessarily think that there are more on this platform."

R6: "I suppose that Covid19 has changed the way how people meet (and not only on this dating platform). Anyway, as I haven't met anybody (not on this platform) since the beginning of the pandemic, I cannot really say."

R7: "To answer your interesting question, I know there are different categories of people. Covid19 only divides a population even more, some will succumb to the uncertainty, while others will try to understand why. This said, people will still continue to meet, nevertheless adapting to the constraints, or otherwise they would lose their humanity. Here you go, this is my opinion."

R8: "This is exactly the way it is! It as if we are window shopping here! We communicate on the platform, then one encounter, a second and a third, ... and then nothing any more.... People don't take the time any longer to know each other. And then when you get lost, you don't know any more what you were looking for. I wish you a nice day."

R9: "Photoshop, lol, I know how to use it, but I doubt they know. Simply stolen photos. I notice because of the lightning in the photos, the décor, anyway...."

R10: "It is my pleasure. People lie out of fear of the reaction of others, and because it is easy, alas, and out of habit, how sad... I think. This is only my opinion. They prefer lying about their private lives, adultery, their sexuality, their political opinions, and many other subjects also. Only the truth leads to trust. Have a nice day."

R11: "The lies remain essentially the same compared to a normal period of time: age, professional situation, availability, photos, and hobbies. Some people might lie about the fact that they are not afraid of the virus, to get noticed, to attract attention, or to put themselves forward."

Research Question: Do daters lie differently in coronavirus times?

28 out of 36 said: I do not lie. I am honest. 12 out of 36 said "I don't care about what others do. I live my life." 10 out of 36 said that a liar remains a liar and the lies remain the same. Daters lie about 1) age, 2) photos, 3) weight, and 4) height, and this is independent of coronavirus times. 6 out of 36 said that they thought that they had changed their lying habits, because they spent less time at work (because of unemployment or working remotely) therefore spending more time in front of their screens to kill time; relieve boredom and to avoid depression.

Table 3: Do daters lie differently in coronavirus times?

Do daters lie differently in coronavirus times?	N (N total 34) multiple answers were possible
I do not lie. I am honest.	28
I do not care about what others do. I live my life.	12
No, they have not changed. A liar remains a liar and the lies remain the same. Daters lie about: 1) age, 2) photos, 3) weight, and 4) height, and this is independent of coronavirus times.	10
Yes, I think they have changed their lying habits for several reasons: more time spent behind the screen, more home office, less work, more loneliness, more boredom, more depression, more family problems.	26

Some quotes:

"No, they still lie about their age. Nothing has changed and the photos do not match reality, or the photos were taken years ago. Men say exactly what women want to hear in order to seduce them. Take the example of weight, the reality is 10 kilograms more, but if they say 'a few kilograms overweight this often means 20 kilograms too much or even more."

"Yes, I think they changed their lying habits, because they spent less time at work and to kill time and boredom and also to avoid depression."

"Yes, hidden behind their screens they lie differently. This allows for all kinds of deviation, including lies."

"I detect the fake accounts rapidly. When they lie, I notice it directly. Already in the profile when someone says 'I am a woman who is above all serious', strange formulation, typically fake. Then you can add 'visiting my parents in the region', or a PhD with a lot of errors, or someone who is too beautiful, that's suspect, lol."

"I don't care about what others do. I live my life."

"Yes, digitalisation allows for accumulation and hoarding of potential partners. They communicate with many potential partners at the same time, try them all out, and simply and easily go over to the next potential partner, all virtually, without ever taking the time to know one candidate. It is like self-service shopping. I prefer to ask my friends and meeting in person."

"Yes, (wo)men are not made for being alone. Because of the coronavirus, people can less easily socialise outdoors or out of their homes. Therefore in this moment, an online dating site is the right way to get into contact with others. Is this valid also for me? No! I am still looking for the needle in a haystack. True love! For me, it is very simple: all or nothing!"

"No, people have always been lying, trusting somebody has become very difficult nowadays. Only time will allow us to know others, even though we often are surprised or deceived."

IMPLICATIONS AND GENERAL DISCUSSION

The author would like to emphasise that most publications in this field concentrate on *Lying* and *Deception* (Markowitz and Hancock, 2018), while the author's contribution is more about *Love*, *Trust* and *Honesty* (Summerland, 2020, 2021). Linking it to cross-cultural management (Hofstede insights, 2021), is innovative, not only to digitalisation in dating practices (Markowitz and Hancock, 2018), but also to research about interpersonal trust propensity (Klein Woolthuis, Hillebrand, & Nooteboom, 2005), or negotiation (Stefanidis, Banai, Schinzel, Shetach, Shakirova, Erkus, Goelzner and Ozbek, 2017), and ethical decision-making (Craft, 2013). This research touches as sensitive subjects as responsibility (Schinzel, 2020) and 'business under crisis' while still continuing responsible leadership in pandemic times (Schinzel 2021), including 'Digital Transformation' following Walvadkar and Kaufmann (2021) in times of business under crisis with digital transformation of Learning and Development, seen as the big winner of the pandemic: digitalisation, as discussed in Thrassou, and Efthymiou, (ed.) (2021).

The research question was: Did the Coronavirus pandemic influence dating habits, lies, trust propensity, yes or no, and if yes, how? The author would like to thank the respondents of this study for having replied in an open and honest way to the research questions. Without their contribution this study would not have been possible. The results of this study are more positive than expected. The proposition was met: Daters have changed their dating habits, resulting in an increase in the digitalisation of contacts.

Honesty and Trust are key to this study. Among all these untruthful and lying people, the author found many trustworthy people who did not lie or nor cheat in any way. They were honest and looking seriously for a serious partner.

What is the main difference in dating habits before, during and after the coronavirus pandemic? Generally, the advantages and disadvantages of online dating platforms remain unchanged. Just like in non-digital life and dating in person, people lie about attributes such as name, age, career, salary, alcohol consumption, habits, vacation, sports, or general state of health.

However, online dating platforms allow for some specific behaviour, combining love and lies in a peculiar way. This is what motivated the author to write up her experiences in the form of this study.

Interestingly, in general and in particular in the dating habit, digitalisation has been accelerated as a result of the pandemic. The outcome of this research illustrated the difference in contacts, the distance in the contacts, the scarcity of contacts, the preference for virtual contacts, or meeting outdoors for a walk or a bike ride in the countryside instead of in restaurants, pubs or bars. Daters prefer either meeting on their computers, smartphones or somewhere in the nature.

One respondent openly stated that “When I realized what kind of people are on the online dating platform, I decided to look for my partner in real life, outside of the online dating platform and in the real world. However, this is difficult as both men and women nowadays do not dare speak to other people on the street or in a café, or in the supermarket, or at a dancing ball, like they used to do years before. They are shyer in person than online.”

CONCLUSION

While some daters are honest, many use different methods of impression management, mainly to improve self-presentation and availability. Coronavirus has changed dating habits, moving from meeting in person to more online meetings or meeting in open-air spaces. Digitalisation and nature and bicycles are the winners of this pandemic.

Whereas before the pandemic, daters met in person and in bars or restaurants, during and after the pandemic, the choice was/is for digital meetings and/or meetings outdoors, going for a walk or a bike ride.

LIMITATIONS AND FURTHER RESEARCH

Being a single researcher, the number of people contacted, the number of interviews, email and messages in writing, meetings in person, and the number of interviews is limited. Larger scale research would be necessary to allow for more statistical use of the data. However, the identity and purpose of the researcher could not be revealed to the online dating platform users, without making them suspicious of her purpose. In addition, the place of research being small, where many people know each other, it was difficult to hide the objective of research. Further research could allow for more sophisticated statistical applications, operating on a larger scale and interviewing more people.

Future research could look into progress and advancement in digitalisation of online dating over time compared to initial online dating, as digital dating habits evolve over time, and also compared to in-person dating habits.

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FINANCIAL RATIOS AND DETERMINANTS OF FINANCIAL SUCCESS. THE CASE OF SUCKLER COW FARMS IN GREECE.

Tsiouni, Maria¹; Gourdouvelis, Dimitris²; Aggelopoulos, Stamatis¹

¹School of Agriculture, International Hellenic University, Thessaloniki, Greece

²Department of Animal Production, Faculty of Agriculture, Aristotle University of Thessaloniki, Greece

ABSTRACT

In Greece suckler cow farming is considered to be a dynamic sector of animal production, and it contributes significantly to the national economy, as it is an important source of employment compared to other agricultural operations and it produces high quality products. In recent years, the suckler cow sector in Greece has been transformed in business ranking. The viability and profitability of the sector can be ensured through financial analysis. The application of financial ratios can provide information's about the assessment and improvement of farms' economic viability. The aim of the paper is to apply the financial analysis to suckler cow farms and to determine the influences underlying management decisions and, as a result, to assess the progress of various stakeholders in their implementation.

Keywords: Financial ratios, financial success, suckler cow farms

INTRODUCTION

In the European Union countries, cattle production is one of the most important segments of livestock production. In Greece suckler cow farming is considered to be a dynamic sector of animal production, and it contributes significantly to the national economy, as it is an important source of employment compared to other agricultural operations and it produces high quality products, covering about 18% of protein and 9% of the human energy needs (Phillips 2001). With 178 thousand suckler cows, the Greek beef cattle industry represents only 2.22% of the total European suckler cow population (EUROSTAT 2013).

The number of calves produced in the country cannot meet the country's needs, so calves are imported from third-world countries or from Europe. Last years, the sector was transformed in terms of business rankings due to increased technology use, accelerated sector growth, and bigger operations (Vanhuyse, 2016). Due to the subsidies suckler cow population has increased by 12% over the past five years. As a result, the traditional extensive cattle breeding system changed and by systematic replacement of indigenous breeds with improved ones, by building and using stables, and by hiring workers, a new era in cattle breeding began (Zervas, 2008). Moreover, the reforms to the

CAP have made significant changes in the beef cattle sector, such as reducing the number of farms and increasing the size of the herd (Bernues et al. 2011). Nevertheless, the evolution of more intensified management practices, the sector still remains unprofitable. The viability and future development of suckler cow herds depend, among other factors, on the achievement of a reasonable level of profitability (Syrůček et al., 2018). The challenges faced by livestock, like low selling price, rising production costs and other factors significantly affect revenues, don't allow the viability of the farms.

As reported in many studies, the viability and profitability of the farms is associated with many factors like labour and investment costs (Michaličková et al., 2016), payment supports (Wolfová et al., 2004; Jones, 2007), production costs (Lososová et al., 2016), feed costs (Nayigihugu et al., 2007) and price of weaned calves (Wolfová et al., 2004). The farms should take opportunity costs into account to remain viable and profitable (O'Donoghue et al., 2016). In order to understand the economic situation and the needs of suckler cow farms it is essential to take into consideration the financial analysis of the farms, as well as controlling managerial activities (Mitrović et al., 2015). Information about the financial situation of farms can be obtained from financial ratios. The manager of the farm is considered "moderate" if the farmer's financial ratios match average values or are close to them (Aleksnevičienė et al., 2011). An analysis of financial data can be a powerful tool for evaluating the profitability of investments, and the financial impact they will have on potential investors such as farmers.

Many studies have been carried out, using financial indicators to predict farm businesses' performance. Financial ratios provide a concrete information basis for assessment and improvement of farms' economic sustainability and viability (Breitschuh et al., 2018; Latruffe et al., 2016). Many researchers used quantitative data and financial ratios in order to measure financial risks in farms (de Olde et al., 2016; Zapf et al., 2009). Aleksnevičienė et al. (2011) study with the use of financial indicators the ways that the farmers can manage the short and long term loans in order to avoid the risks and be more profitable. Bonazzi and Iotti (2014) studied dairy cattle farms economic activity in Italy, in order to measure their cash flow with the use of financial indexes. Nwoha et al. (2007), taking into account data from balance sheet studied the business risk from loans at the operational level. Other researchers, analyzed liquidity, solvency, profitability, and financial efficiency of crops and livestock farms (Chavez et al., 2009). Moreover, Zorn et al. (2018), with the use of financial ratios that represent profitability, liquidity and stability, measured the economic sustainability of Swiss dairy farms. Wolf et al., (2016) made a comparative analysis of profitability, solvency and liquidity of dairy farms in USA, in order to notice the effect of size in financial results.

As a result of all of the above, it can be concluded that research associated with the use of financial ratios of various livestock farms has been limited, and no research has been conducted on suckler cow breeding.

The aim of the paper is to apply the financial analysis to suckler cow farms and to determine the influences underlying management decisions and, as a result, to assess the progress of various stakeholders in their implementation.

MATERIAL AND METHODS

Study area and data collection

The study area was the region of Central Macedonia, Greece. A large portion of the country's livestock farming activity has been developed here, where 11.90% of all dairy cows and 25.74% of all beef cattle are raised (Hellenic Statistical Authority 2017). These reasons, in combination with the soil and climate conditions, as well as the land use and the presence of urban centers have led to the decision that this area would be a representative area for the study (Gourdouvelis et al., 2019). In the sampling area there are 129 holdings of suckler cows with a size of more than 20 cows. The final sample includes 55 suckler cow farms with 5.833 suckler cows, accounting the 48% of all suckler cow holdings of the specific region. The data were collected by a questionnaire and through personal interviews with the "heads" of the suckler cow farms during the year 2020. The questionnaire completion time was estimated at 60 minutes for each suckler cow farm. The sampling method was layered randomly (Siardos, 2005). In the final analysis, small, medium and large farms were included and as a result there is a great variation in the parameters that are taken under consideration.

Methodology

In agriculture and livestock sector, there is a gap between the importance attached to the accounting and low level of accounting and bookkeeping practices. Accounting rules were not adapted to certain aspects of agriculture and their implementation was difficult and expensive. Despite the relative importance for the economy in many countries and growing links with other sectors, agriculture is traditionally not given much attention by researchers engaged in accounting (Argilés and Slof, 2001). For this reason, the balance sheet structure was simulated. The data obtained from the questionnaires were first introduced in Microsoft Office 2010 and specifically in Excel program and then, for the statistical analysis, SPSS24 was used. In order to better highlight the financial characteristics of the sector, we proceeded to the statistical analysis and study of the indicators, classifying them based on the number of animals per farm (farm size). The holdings were divided into three categories according to the number of cows, over 2 years old, that maintained. The first category included farms of size

from 20-50 cows, the second from 51-100 cows and the third farms with more than 100 cows (Ruiz et al., 2008).

In view of a broad practical application of financial indicators, according the literature and have in mind to reduce the number of indicators to a minimum while keeping all relevant aspects of economic sustainability we propose eight financial ratios in a context of farm accounting data; the resulting four indicators represent profitability, liquidity, financial efficiency stability and solvency, consist of two financial ratios each and build together the basis for assessing the economic viability of farms (Zorn et al, 2017; Breitschuh et al., 2008; Latruffe et al., 2016; Grenz 2017; Obi et al., 2011; Schweizerischer Bundesrat 2013).

RESULTS

Table 1. Results of financial ratios

Ratios	Average	Standard Deviation	Min.	Max.
Liquidity				
Invest turnover	0.75	0.21	0.13	1.68
Current ratio	1.62	0.92	0.24	3.05
Solvency				
Total liabilities to equity	0.21	0.07	0.01	0.74
Total liabilities to total assets	0.18	0.12	0.02	0.62
Profitability				
Return on assets	0.01	0.15	-0.45	0.44
Return on equity	-0.03	0.08	-0.14	0.67
Efficiency				
Total assets turnover	2.98	0.98	0.83	7.14
Depreciation expense ratio	0.19	0.20	0.02	0.73

After the analysis of liquidity, the average invest turnover ratio is 0.75, indicates that the farms generally do not show effective use of invested capital in relation to their sales. The average current ratio is 1.62 indicates that the farms have the ability to meet current debt obligations by current assets in the next twelve months. After the analysis of solvency, the average Total liabilities to equity ratio of 0.21 which is relatively low suggests that the farms are worthwhile. The average total liabilities to total assets ratio is 0.18, indicates that that the holdings are mainly dependent on equity. After the analysis of profitability, the average return on assets ratio is 0.01, shows that that the holdings are marginal sustainable and efficient in terms of investment. The average return on equity ratio is negative (-0.03) and that incurs a loss, hence bad investments. The average Total assets turnover ratio is 3.14 indicate that the farms uses quite efficiency their assets. The average Depreciation expense ratio is low, indicates that less gross revenue is required to cover depreciation.

Table 2: Classification according the farm size.

Size categories	Number of farms	Percentage
M1: 20-50	17	30.9
M2: 51-100	26	47.2
M3: ≥ 101	12	21.9
Total	55	100

Table 2, shows that in the first size class there are 17 suckler cow farms (30.9%), in the second size class there are 26 suckler cow farms (47.2%) and in the third size class there are 12 suckler cow farms (21.9%).

Table 3. Comparison of financial indicators in terms of the size of a suckler cow farm

	M1 (20-50 animals)		M2 (51-100 animals)		M3 (≥ 101 animals)	
Ratios	Average	Standard Deviation	Average	Standard Deviation	Average	Standard Deviation
Liquidity						
Invest turnover	0.19	0.12	0.68	0.34	0.81	0.23
Current ratio	1.03	0.87	1.75	1.05	1.82	0.90
Solvency						
Total liabilities to equity	0.18	0.35	0.39	0.27	0.29	0.26
Total liabilities to total assets	0.14	0.26	0.41	0.28	0.30	0.15
Profitability						
Return on assets	-0.53	0.25	-0.01	0.32	0.39	0.50
Return on equity	-0.02	0.15	0.39	0.22	0.64	0.20
Efficiency						
Total assets turnover	0.95	1.15	2.75	2.32	3.02	3.08
Depreciation expense ratio	0.68	0.13	0.26	0.31	0.18	0.22

According to liquidity ratios, we can observe that the smaller farms, present an inefficient use of the invested funds in relation to the sales made. The current ratio indicates, that all size farms have the ability to meet current debt obligations by current assets in the next twelve months, but the bigger farms have a better financial position. After the analysis of solvency, long-term creditors generally start from the point that their claims are safe to the extent in which a firm owns its own capital. In the observed case, the bigger farms are financed by debt. The Total liabilities to equity ratio and the Total liabilities to total assets ratio are higher for bigger farms, indicating that these holdings use mainly loans, which reinforces the fact that bigger farms have higher invested capital per animal and more modern facilities in relation to the smaller farms. According to profitability ratios, the rating of the Return on assets and Return on equity ratios shows that in small sized farms, the use of assets is not

the most appropriate and as a result the contribution to the efficiency of these farms is negative and they don't have the ability to generate profit. Finally, the financial efficiency ratios, intend to measure how well financial resources were used to generate revenue. According to Total assets turnover ratio, this ratio is higher in bigger farms, so the more efficient farm assets are used. The Depreciation expense ratio is lower in bigger farms and this indicates that for these farms less gross revenue is required to cover depreciation.

CONCLUSION AND DISCUSSION

For livestock enterprises to make decisions as well as report financial data, financial information serves a number of functions. The financial statements can provide valuable information to managers. There are a number of conclusions that can be drawn from the descriptive and statistical analysis, as well as from the data themselves. The framework presented here provides a model of the underlying factors that determine financial performance, although it is not complex. A priori, all six categories of financial indicators can be expected to influence future of the suckler cow sector. The results, in terms of solvency, show that the smaller farms don't use the invested funds efficiency, but in short term they can survive. On the other hand, the bigger farms use mainly loans, which reinforces the fact that bigger farms have higher invested capital per animal and more modern facilities in relation to the smaller farms, but they are more profitable in relation to smaller and that indicates that they have made the right investments, in order to increase the animal production and reduce the production costs. Finally, the bigger farms are financial efficiency and that means they can generate the revenues. The results showed that herd size is a key factor noticeably affecting the financial outcomes of suckler cow farms. Herd size is positively correlated with financial ratios results and farms could benefit by adjusting to an optimal size. Large farms appear to perform significantly better than small farms. Given the importance of herd size, policy measures and incentives for suckler cow farms to exploit economies of scale could have a positive effect. Farms take advantage of economies of scale to reduce investment per cow, to reduce variable production costs per unit, and to improve productivity and managerial efficiency (Bailey et al., 1997). By increasing herd size and specializing within the farm operation, efficiency can be improved, which is crucial for the farm survival (Olegginy et al., 2001). Farm business success remains important despite the changing nature of farming, and this paper paves the way not only for further research into its levels and determinants, but also highlights the need for a comprehensive understanding of farm business performance indicators. The use of these criteria will enhance the planning, monitoring, and control processes on farms and provide businesses with criteria that will provide them with insights into the operations.

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FACTORS ASSOCIATED WITH GROSS REVENUE ON GOAT FARMS

Tsiouni, Maria¹, Gourdouvelis, Dimitrios², Aggelopoulos, Stamatis¹

¹School of Agriculture, International Hellenic University of Thessaloniki

²Animal Genetic Resources Center of Thessaloniki, Ministry of Rural Development & Food

ABSTRACT

Goat farming is a dynamically developed sector in Greece with relatively high contribution to the Gross value of livestock production. The aim of this study is to identify influential factors from a large number of explanatory variables' which are likely to have the largest, most reliable associations with Gross revenue on goat farms. The survey included 272 farms of different capacity and size from Central and Western Macedonia, Thessaly, the Peloponnese and Western Greece. Data were collected by filling in questionnaires, specially developed for the purposes of the research. Results from regression analysis (OLS) demonstrate that the studied factors affect Gross revenue. The factors with strongest influence on Gross revenue are Labour cost, Feed cost, the Invest Capital Turnover Ratio, Fixed Capital Expenses and Capital Efficiency.

Keywords: Gross revenue, Goat farming, Regression analysis

INTRODUCTION

Greece is a country with a long tradition in animal breeding, particularly involving small ruminants and goat farming is an important livestock industry. The contribution to the Gross value of livestock production is about 14% (Greek Statistical Service, 2016). A large proportion of goat milk and meat production takes place in mountainous and disadvantaged areas in Greece, which are characterized by poor resources in comparison to other rural areas and remoteness from main centers of population. Moreover, it utilizes pastures and woody plants that are not suitable for alternative uses, it provides farm families with income and uses excessive farm family labour rather than hired labour (Ziogas et al., 2001; Theodoridis et al., 2012). Livestock production, which is largely extensive, is one of the main economic activities in mountainous and disadvantaged areas and is considered to be a potential choice for rural development.

Greece holds the fourth position in world production of goat's milk, while holding the second position among the EU countries, after France. The total number of goats in the country is around 4.8 million heads (FAO, 2009). The number of livestock farms in Greece is very important and focuses primarily on Macedonia, Thessaly, Central Greece and Peloponnesus. According to FAO (2011), the number of milked adult female goats in Greece is 3.350.000.

Goat farming has a major financial impact, due to: a) the production of large quantities of a high biological and dietary value, b) the fact that it provides employment and an adequate stable income to a large number of animal breeders, and c) the creation of added value through the processing and trading of goat's meat and milk.

Despite the high productivity and high quality of products, the goat industry shows low competitiveness due to high production costs compared to other EU countries (Vlontzos et al., 2006; Aggelopoulos et al., 2009). This implies the low efficiency and the low competitiveness of the industry. The profitability of Greek goat farms is variable, with many farms making a net loss. Approximately 76% of goat holdings in Greece are not viable, while 11% are marginally viable (Arsenos, 2012).

For economic sustainability, farms have to be profitable, therefore it is important to maximize income whilst controlling costs. The most important source of income in goat farms is from meat and milk production, but there is little information on factors that explain variability between farms in gross revenue (Lima, et. Al., 2020).

To ensure economic sustainability, successful farmers commonly adopt risk mitigation practices. These may include low debt to asset ratios, diversification and taking time to understand market forces. Remaining economically viable over the long term depends on regularly having sufficient income to cover both fixed and variable costs (Lima, et. al., 2020).

It is therefore critical to maximize income whilst controlling costs. Although many factors are likely to influence the gross revenue of goat farms, few studies have identified factors associated with productivity and efficiency. Such information would be of substantial benefit to the industry; it could lead to more efficient production, increased revenue and therefore enhanced sustainability of the goat sector.

The aim of this research was to identify farm, farmer and management factors likely to have the largest, most reliable associations with Gross revenue.

MATERIALS AND METHODS

Area of the study

The study area was divided into administrative regions and included the Central and Western Macedonia, Thessaly, the Peloponnese and Western Greece, areas with developed goat farming (Hellenic Statistical Authority, 2018). In Central Macedonia there are 3.482 goat farms with 442.724 animals, in Western Macedonia there are 1.949 goat farms with 160.611 animals, in Thessaly there are 4.201 goat farms with 330.391 animals, in Peloponnese there are 6.265 goat farms with 375.250 animals and in Western Greece there are 12.122 goat farms with 476.681 animals (Greek Statistical Service, 2018).

Data collection

Data collection was performed through interviews and a non-site visits. At the start of the visit, farmers completed a face-to-face questionnaire, including farm and management characteristics relating to a total of 103 different issues assessed (Scollo et al., 2016). The survey took place during 2019-2020. The farmers answered a set of questions, included in a semi-structured questionnaire which lasted 1 h. Stratified random sampling was used to determine the sample (Siardos, 2005), with the regions of each Municipality representing the strata being studied. The sample included 272 goat farms.

Statistical analysis

To carry out this study, a c model was developed that estimates the overall productivity from technical coefficients of goat farming. To estimate the marginal impact of the animal production indicators, a linear regression simulated data with 30 production variables. Thus, it was possible to perform a sensitivity analysis of the marginal impact of different factors and thus understand the variation in gross revenue under different scenarios. Because of many independent variables in the model, and because it enables us to identify those that have the most impact on the dependent variable, we choose 6 variables for the model.

Ordinary least squares (OLS) (Mitchell, 2005) was adopted to establish an equation between gross revenue and several factors that influence the gross revenue.

OLS estimates the unknown parameters in a linear regression model. It is the proper starting point for all spatial regression analysis. It provides a global view of the variable or process one is trying to understand or predict creating a single regression equation to represent that process.

The independent variable in this model was Y = Gross Revenue and the dependent variables were X_1 =Labour cost X_2 =Feed cost, X_3 =Invest Capital Turnover Ratio, X_4 =Fixed Capital Expenses, X_5 =Capital Efficiency.

Trust in the model can be assessed according to six rules: (1) the coefficients have the expected signs; (2) there is no redundancy among explanatory variables; (3) the coefficients are statistically significant; (4) the residuals are normally distributed; (5) there is a strong adjusted R-square value; (6) the residuals are not spatially autocorrelated (ESRI, 2017b). Collinearity was accounted for among the variables utilized according to the six rules of the OLS model.

A multiple regression model was built with python and various combinations of features were tested. The target attribute was Gross revenue.

RESULTS

The features used for the model were selected both manually but also taking into consideration the correlation matrix between the features, as seen in Figure 1.

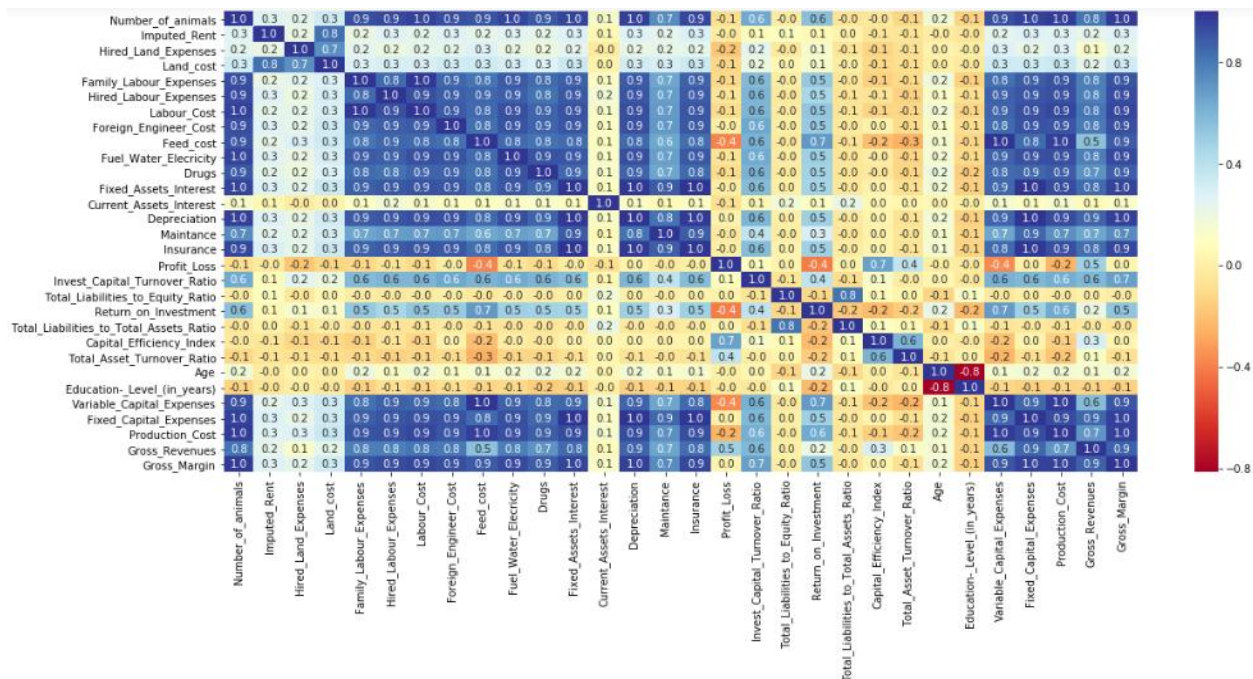


Figure 1. Correlation matrix between the features

The correlation matrix shows that the pair-wise correlation among all the explanatory variables are not very high, which confirms our initial hypothesis that there is no exact collinearity between the explanatory variables.

The data set contains 272 observations. These data consist of a random sample of goat farms, with information on gross revenues and other characteristics of the costs and various financial indicators. We wish to determine whether revenues are related to these characteristics.

The best model derived from the Least Squares model consists of five features:

- Labour cost
- Feed cost
- Invest Capital Turnover Ratio
- Fixed Capital Expenses
- Capital Efficiency

In particular, we are seeking for the following model:

$$\text{Gross revenue} = \beta_0 + \beta_1 \text{Labour cost} + \beta_2 \text{Feed cost} + \beta_3 \text{Invest Capital Turnover Ratio} + \beta_4 \text{Fixed capital Expenses} + \beta_5 \text{Capital Efficiency} + u$$

After estimating the above model and running the post estimation diagnosis in Python, it is seen that if we consider log of Gross revenue as the dependent variable, the variances seems to be more stabilized. Hence the log-transformed wage is used in the subsequent estimation, that is,

$\log(\text{Gross revenue})$

$$= \beta_0 + \beta_1 \text{Labour cost} + \beta_2 \text{Feed cost} + \beta_3 \text{Invest Capital Turnover Ratio} \\ + \beta_4 \text{Fixed capital Expenses} + \beta_5 \text{Capital Efficiency} + u$$

Every feature had very low P-value, which indicates high statistical significance. Features with P-value higher than 0.05 were excluded from the model.

In addition, R-squared was 0.91 and Adjusted R-squared was 0.908. Thus, the proportion of the variance explained by the model is over 90%, which is satisfactory.

Most of the assumptions of linear regression are met:

As seen in Figure 2, the linearity of the model is obvious and the expectation (mean) of residuals is almost zero ($-4.8 \cdot 10^{-11}$).

Also there is no (perfect) multicollinearity between the features and the Durbin-Watson test gives a value of 2.12, so there is almost no autocorrelation between the features.

The only assumption that is not met is the absence of heteroscedasticity, since the Breusch – Pagan test gives a very low p-value, which implies heteroscedasticity.



Figure 2: Multicollinearity among independent variables

By looking at the model summary (Table 1.), the R-squared value of 0.91 which means that our model explains well the cross-sectional data of 272 observations. The F-value is highly significant implying that all the explanatory variables together significantly explain the log of Gross revenue. We notice that the Feed Cost has a negative coefficient, while all other variables have positive coefficients.

Dep. Variable:	y	R-squared:	0.910
Model:	OLS	Adj. R-squared:	0.908
Method:	Least Squares	F-statistic:	537.7
		Prob (F-statistic):	8.74e-137
		Log-Likelihood:	-2699.5
No. Observations:	272	AIC:	5411.
Df Residuals:	266	BIC:	5433.
Df Model:	5		
Covariance Type:	nonrobust		

	coef	std err	t	P> t	[0.025	0.975]
const	-5459.7510	842.683	-6.479	0.000	-7118.929	-3800.573
x1	1.1144	0.098	11.397	0.000	0.922	1.307
x2	-0.6828	0.036	-18.846	0.000	-0.754	-0.611
x3	8982.5251	1663.585	5.399	0.000	5707.056	1.23e+04
x4	2.3980	0.159	15.095	0.000	2.085	2.711
x5	135.7374	21.121	6.427	0.000	94.151	177.324

Table 1: Model summary

CONCLUSION AND POLICY IMPLICATIONS

The results obtained were extremely important, as they helped active producers and those who wish to start, to plan efficiently and maximize the gross revenue. The factors that have the greatest positive influence on gross revenue are labour cost, Invest Capital Turnover Ratio, Fixed Capital Expenses and Capital Efficiency. The factor that have most negative affect on Gross revenue is the Feed cost.

The Feed cost contribute negatively to the economic performance of a goat farm. In order to lead to the optimum exploitation of feed factor, a well-balanced and inexpensive feeding is recommended. The knowledge of animal feed contents in nutritious ingredients and their suitability as well as efficient mixing, feeding and storage facilities of animal feed should lead to the improvement of the used animal feed.

The estimate of the Invest Capital Turnover Ratio shows that the degree of efficient use of the resources controlled by the goat industry is satisfactory.

The use of by mechanising production (e.g. installation of milking systems), and the modernisation of the facilities for ergonomic purposes, lead to an efficient use of labour. Labour is mainly family and thus ensures the relative autonomy of the holdings at a productive factor for which there is no high availability of offered foreign labor.

The last years, the better utilization of the fixed capital by the exploitations in financing programs, in order to improve the building and mechanical equipment, reduce the annual fixed expenses and also improve the increase of efficiency.

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THE INFLUENCE OF COVID-19 ON GEN Z CONSUMERS LIVIGN IN THE UK PLANNING AND PURCHASING OF HOLIDAYS OR LEISURE EXPERIENCES

Tzavara, Dionisia¹; Makinson, Joshua¹; Grose, Christos²; Polychronidou, Persefoni³

¹Management School, University of Liverpool, Liverpool, UK

²School of Business, International Hellenic University, Thessaloniki, Greece

³Dept. of Economics, International Hellenic University, Thessaloniki, Greece

ABSTRACT

Travel restrictions as a result of COVID-19 have had a dramatic impact on tourism, with tourism arrivals globally suffered an unprecedented drop. Fear of contracting the virus has impacted travel decision making process, giving health and safety considerations a priority. Focusing on younger generations of consumers, the aim of the study is to explore the influence that COVID-19 has on Generation Z consumers living in the UK during the planning and purchasing of holidays of leisure experiences. More specifically, through this study we hope to acquire an in-depth understanding of Gen Z consumer concerns following the COVID-19 outbreak as well as areas in which the consumers believe would increase their confidence when considering travel. We collect data through an online survey questionnaire distributed to Generation Z consumers living in the UK. We find that while younger demographics believe that their health will not be significantly affected by COVID-19, there is a stronger worry about passing the virus on to friends and family who may die. Furthermore, domestic travel is not viewed as dangerous as international travel and short-haul destinations are viewed more favourably than long-haul destinations. Finally, the research found that younger demographics showcase an interest in paying more money to protect their health when flying internationally or at their accommodation during international travel. Considering the unprecedented and unpredictable circumstances businesses currently face following the COVID-19 pandemic and the imminent, critical threat to their survival, the study had the ability to contribute significantly to the knowledge, understanding and response to the crisis.

Keywords: Covid-19, Generation Z, Holiday Planning, Leisure Experiences, International Travel, Domestic Travel

INTRODUCTION

On 11th March 2020, the World Health Organisation declared SARS-CoV-2 (COVID-19) as a pandemic having spread to 168 countries and regions with over 381,000 confirmed cases. Since the outbreak of the

virus, global markets have experienced a dramatic downturn with key markets losing 20%-60% of their value year-to-date. In an attempt to curtail the humanitarian and economic crisis, governments across the world have responded to the threat with dramatic measures such as isolation and the closing of borders. Such measures have limited people's ability to travel and airlines, tour operators and hotels are seeing significant declines in occupancy and uptake, experiencing significant financial difficulty and many approaching governments for support packages to continue operating or furloughing employees (MarketLine, 2020). By February 2020 and due to the severity of the disease, the UK Foreign and Commonwealth Office (FCO) has advised all British people against non-essential travel worldwide. Furthermore, the FCO notes that during this period, there are unprecedented international border closures and restrictions (Foreign & Commonwealth Office, 2020). This approach was also adopted by at least 80 other countries and territories. Vidya and Prabheesh (2020) notes that the COVID-19 pandemic is one of the most serious global economic disasters since the 1930's depression. The majority of countries are experiencing falling economic growth, decelerating trade and devastating impacts to financial markets. The authors highlight that global trade is expected to decrease by more than 13% in 2020, a bigger decrease than that associated with World War Two. Beck and Hensher (2020) proposes that due to such restrictions and vaccinations progressing at a slow pace, the aviation sector must focus on domestic travel rather than international travel in order to restart. COVID-19 has had the most damaging effect on travel having previously continued to grow unabated throughout previous disasters such as the oil crisis, 9/11 attacks and SARS.

Younger people are more concerned about travelling since the COVID-19 outbreak than previous epidemics such as Ebola, therefore, their concerns, needs and wants must be addressed in order to effectively communicate with the audience and to sell travel products and services following this significant societal shift. Generation Z are individuals born between 1995 and 2009 and in 2017 accounted for 1.8 billion people or 24% of the global population (Euromonitor, 2018). Generation Z is expected to become, and remain, the largest consumer group across all generational categories until 2030 (Euromonitor, 2020), thus, it is vital that travel businesses are considering this cohort following the outbreak of the COVID-19 virus.

The aim of this research is to explore what influence a global pandemic such as COVID-19 has on Generation Z consumers living in the U.K. during the planning and purchasing of holidays or leisure experiences. More specifically, the research aims to help develop an understanding of the types of holidays or experiences considered important to Generation Z consumers following the Coronavirus outbreak and to explore the primary concerns of Generation Z consumers during the planning and purchasing of holidays following the Coronavirus outbreak and to the factors that increase consumer confidence when planning a holiday post-pandemic.

The research hopes to inform tour operators and travel organisations toward generating greater sales and increasing consumer confidence post-pandemic. As travel businesses and organisations are facing monumental challenges both from lack of customer interest and external political forces such as travel restrictions, it is vital that such organisations have the ability to understand changes within the market and respond accordingly to the changing needs and wants of consumers. A clear understanding of consumer concerns, behaviours and preferences will be a vital contribution to the return of travel and the success of organisations operating within this sector. In unprecedented situations, a new understanding must be gained in order to effectively manage and lead an organisation, this research aims to bridge the gap in understanding and provide a platform for businesses to move forward.

Data was collected through an online questionnaire aimed to capture insights and information into the concerns of travelers, their perceptions of travel, likelihood of travelling in the coming months and the types of holiday they were interested in. The research findings confirmed the initial assumptions were correct and highlighted specific concerns within the market. The study showcased that while younger demographics believe that their health will not be significantly affected by COVID-19, there is a stronger worry about passing the virus on to friends and family who may die. Furthermore, domestic travel is not viewed as dangerous as international travel and short-haul destinations are viewed more favourably than long-haul destinations when considering a UK audience. Finally, the research found that younger demographics showcase an interest in paying more money to protect their health when flying internationally or at their accommodation during international travel.

LITERATURE REVIEW

Travel and risk

Quintal et al. (2010) note that travelling and travel decision making involves a certain level of risk that must be considered by both tourists and the operator. Morakabati (2007) suggests that the significance of risk perception when considering travel or making travel-related decisions takes on higher levels of influence on the decision-maker following a recent, negative incident. Travel-related risks can be categorised based on the degree of control and the speed in which the risk becomes present, for instance, hurricanes, earthquakes and fires are sudden events and have a low degree of control, whereas, hotel overbookings and water pollution may have a high degree of control and relatively gradual onset. Epidemics have a medium degree of control and a relatively gradual onset (Glaesser, 2006). Additionally, Glaesser (2006) suggests that two quantitative actors contribute to perceived risk when considering travel, the first being the probability of an incident happening and the second being the level of damage resulting from the incident. Similarly, Chien et al. (2017) remark that perceived risk contains two key elements, uncertainty and consequences. Uncertainty has been explored within travel

research in association with the risks surrounding various destinations, whereas, consequences have been explored in relation to the available information to tourists and travel decision making as a result of a risk assessment.

Global travel and international tourism were expected to continually grow regardless of unforeseen tragic events and natural disasters taking place around the world. That said, tourists are becoming more concerned with their personal safety and security during international travel (Han, 2005). Bergstrom and McCaul (2004) found that following the 9/11 attacks in the USA, worry was the most powerful contributor towards an individual's unwillingness to fly. Similarly, Lepp et al. (2011) suggest that the safety of a destination can contribute to perceived risk. Like Han (2005), the authors note that risk and safety is a growing factor within the tourist booking process. Kozak et al. (2007) found that the majority of travellers are likely to change their travel plans to a particular destination if the said destination has a higher level of risk associated with it. Such an approach proposes that travellers are sensitive towards an additional risk that is presented when considering travel or visiting a specific location. Lawrence and Schmidlin (2002, as cited by Morakabati, 2007) note that there are also individual risk factors to consider that vary depending on the demographic variables such as age, sex and education. The authors suggest that generally, individuals tolerate much more risk in activities where the expert personal control is in the hands of an external body. Individuals are more favourable to risk that has consequences over a more extended period than those that are instantaneous (risk-averse), the level of the detrimental event, the higher the intuitive probability and low probability events are overestimated, seeming more likely than they are. In short, travellers respond more negatively to riskier events that are under external control, are low probability but catastrophic and in which they have had a recent or existing experience.

Ma et al. (2020) note that younger travellers have their own, unique risk profile. Due to their low-risk perceptions regarding travel-related illnesses and infections, younger demographics have a higher risk of illness than their older counterparts. Additionally, the authors found that younger travellers were more likely to take health risks, being less willing to cancel flights when feeling ill and less likely to comply with travel-related preventative measures. Similarly, Aro et al. (2009) found that Finnish tourists travelling to South-East Asia during the avian influenza epidemic in 2004, were more likely to take health-related risks if under the age of 40. On the other hand, Dolnicar (2005) notes that a large proportion of young travellers consider physical risk as a primary concern.

Travel and COVID-19

Beck and Hensher (2020) note that social distancing has been implemented and communicated by governing bodies to decrease the speed of spreading due to less contact between individuals. Social distancing has included the closing of schools, shops, restaurants and bars with additional regulations

prohibiting public events and promoting working from home. Furthermore, countries have imposed lockdowns on residents in territorial or country wide restrictions to slow the rate of spread. Finally, border restrictions and advice surrounding travel was introduced by many countries to reduce the number of people conducting non-essential travel. Linka et al. (2020) suggest that travel restrictions should continue to be implemented following the development of a model that suggests at least one COVID-19 infected individual would enter a province each day upon full reopening. The authors note that through the implementation of bans on particular air routes and quarantining upon entry, a more efficient control of the virus can be achieved. Similarly, Adekunle et al. (2020) found that such travel restrictions implemented between China and Australia would successfully delay the onset of the virus by four weeks. The authors note that as the virus becomes more contained internally, the travel controls are expected to become less effective, however, note that countries should share real-time data and forecasting to manage the restrictions and any future outbreaks. Similarly, Farzanegan et al. (2020) note that in an era of travel via plane, it is simple for an individual carrying COVID-19 to travel unnoticed by health officials, infecting numerous people during their journey at the source of their departure and their destination country. The authors found that based on a destination's past records of international tourism, there is a positive, significant association with the cumulative numbers of confirmed cases. The authors suggest that more controls and restrictions should be implemented, specifically highlighting international border closures. Finally, Gössling et al. (2020) found that due to the magnitude of the COVID-19 pandemic, there is a requirement for travel organisations not to return to business-as-usual when the crisis is over. The author suggests that travel companies should consider the role of domestic tourism during the long-term recovery period and the consideration of more resilient destinations.

Generation Z, travel and risk behaviour

Demographic changes can affect tourism directly or indirectly; therefore, must be considered by those operating within the tourism industry in order to meet demand (Victor and Schänzel, 2019). Generation Z, sometimes referred to as the iGen and Gen Z, are individuals born between 1995 and 2009 and in 2017 accounted for 1.8 billion people or 24% of the global population. Generation Z are expected to become and remain the largest consumer group across all generation types in absolute and relative terms until 2030 (Euromonitor, 2018). The cohort is regularly referred to as digital natives due to their full access and regular use of the internet and the utilisation of a number of technological breakthroughs such as the smartphone and social media. Such breakthroughs have given this generation instantaneous access to news and information making the cohort more socially conscious and connected (Turner, 2015). Generation Z has multiple motivations, including a sensitivity to their impact on the environment and are open-minded when considering travel. Additionally, the reason for

travelling often relates to conviviality, socialisation and empowerment, all of which are directed by behaviours such as, last-minute decisions, increasingly low-cost offerings and services, a constant search for opportunities and the use of word-of-mouth recommendations to select their proposed destinations (Haddouche and Salomone, 2018). When considering travel, Băltescu (2019) found that Gen Z travellers have an inclination for last-minute decisions and bookings, continuously search for opportunities and utilise word-of-mouth sources to choose their destinations. Furthermore, this particular cohort generally seeks out low-cost services. Interestingly, Silvar et al. (2019) found that Gen Zs prefer to travel with friends over partners, family and alone. Again, the authors found a clear preference for low-cost airlines as the primary transport choice. With regards to the payment of holiday, with Generation Z being younger than other generations, over 58% suggest that their holiday is paid for by parents with only 24% of Millennials using this form of payment. Yeoman and McMahon-Beattie (2019) explored the need for experiences and the rise within this particular trend. The author notes that there is a desire to collect unique experiences as the souvenir itself and with the world now being a more connected place. Intense and immersive travel experiences are a way to create a sense of belonging to human interaction.

Schroth (2019) notes that Generation Z (Gen Z) have different patterns of behaviour to their predecessor generations, highlighting that generations have pervasive cultural values and practices change over time. The author suggests that Gen Z's have greater economic wellbeing, are generally higher educated, and more ethnically and racially diverse than any other generation. That said, the author suggests that Gen Z consumers are also more likely to suffer from anxiety or depression. Additionally, this generation is considered to have been raised in a culture of safety. Aligned to this view, Dwivedula et al. (2019) notes that Gen Z is low in optimism. Mojtabai et al. (2016) also found that rates of depression within adolescents are increasing substantially, noting Generation Z to report being significantly lonelier than any other adult age cohort. That said, Seemiller and Grace (2018), note that 44% of Gen Z believe that health is one of the most important aspect of their lives and believe that when considering disease and illness, a large number of old diseases such as polio and smallpox have been eradicated or reduced, thus, the cohort generally views themselves as above average when considering their health. Interestingly, the authors note that older generations that experienced diseases such as bird flu, Ebola, swine flu, mad cow disease, SARA and Ziki did not consider them as a threat or expect them to spread enough to impact their daily lives. Comparably, Bencsik et al. (2019) found that Gen Z s pay careful attention to their health and wellbeing, however, do not consciously conceive what health is for them. Similar to Schroth's findings, the Bencsik et al (2019) suggests that mental and emotional stability is vital to the cohort. Seemiller and Grace (2018) suggests that the Gen Z cohort showcases less risky behaviours than older generations during their teen years. This risk averse

approach also contributes to a lack of immediate spending within the cohort with Gen Z's wishing to save their money rather than spend it. Furthermore, Beck and Wright (2019) note media to have substantial impacts on the Generation Z cohort, citing 9/11, tensions with the Middle East and increased security, all of which have dominated the media, has directly impacted the perceived safety of this young cohort.

DATA COLLECTION

This research utilised quantitative methods for the collection of data. More specifically, data was collected through an online survey questionnaire which used 5-point Likert scales (where one represented extremely unlikely or strongly disagree and five representing extremely likely or strongly agreed) to capture participants' opinions. The survey was developed on the basis on three published studies: i. Cahyanto et al. (2016) who capture the dynamics of travel avoidance following Ebola in the U.S. ii. Seeman et al. (2019) was adapted to explore the likelihood of visiting specific countries following the pandemic, and iii. Duman et al. (2020) who explored vacation interests and vacation type preferences in Austrian domestic tourism. The questionnaire consisted of a part that captured the respondents' demographics, and then explored current travel perceptions, and the types of vacations individuals participate in. The questionnaire was delivered through JISC online surveys and was designed to take approximately fifteen minutes to complete.

The relevant population to this study consisted of individuals born between 1995 and 2001 and a resident of the United Kingdom, all of which were aged above 18 years old. This demographic serves as a subsection of the Generation Z cohort within the U.K. a group regarded as one of the most important cohorts when considering the future of travel and tourism. It has been suggested that this demographic regard travel and unique experiences as a marker of a good life (Yeoman and McMahon-Beattie, 2019), suggesting the importance to consumers that concerns are met and managed in the future. The size of this population was estimated at 14.5 million in 2015 (Statista, 2015) and a minimum of 384 respondents was considered to be representative of the population. The respondents could be placed anywhere within the U.K. in order to achieve an overview of the general population rather than specific areas. Potential participants were approached through social media platforms, and more specifically, through Facebook and Instagram. Following the collection of the data, IBM SPSS Statistics Version 25 and Microsoft Excel were utilised to conduct Descriptive analysis, independent-sample T Tests and reliability analysis.

FINDINGS

Starting with a brief profile of the participants, of the 403 completed surveys, 69.4% of the sample were female and 30.6% male. The primary age group of the participants was those between the ages of 21 and 23, representing 45% of the sample. Participants between the ages of 24 and 25 represented 36.3% and those between the ages of 18 and 20 represented 14.9%. There were 3.7% of participants who selected 'other' for their age. Over two thirds of the participants reported to have achieved higher education or vocational equivalent (71.6%), 23.4% had achieved A-Level education or the equivalent vocational experience. Over 87% of the sample reported to be categorised as White when concerning ethnicity, 6.5% responded as Asian or Asian British, 2.7% reported being of mixed ethnic groups, 2.2% identified themselves as Black, African, Caribbean or Black British and finally, 1% suggested they were from another ethnic background. When exploring employment, 240 participants were employed (60%), 135 participants were students (33.8%) and finally, 25 were unemployed (6.3%). Primarily, respondents were from England, representing 88% of the sample with 344 people, Scotland represented 8.2% with 32 individuals, 10 respondents, 2.6% were from Wales and only 5 participants, representing 1.3% were from Northern Ireland.

Participants were less inclined to travel internationally within the next 6 months than they were within the next 12 months (mean responses were 3.19 and 4.19 respectively). Also, participants were asked how likely they were to travel to Asia (not China), Canada, China, Europe, UAE, USA and Other Countries for their next international travel. Europe scored more favourably compared to all other international destinations, with 91.6% of the respondents suggesting that they were likely or highly likely to select Europe for their next international travel. Among the other choices, Other Countries scored higher, with 38.4% of the respondents suggesting that they were likely or highly likely to visit Other Countries, while for Asia (not China) the score was 37.1%, for Canada, 32.5%, , for USA 30.2%, for the UAE 23.3% and not surprisingly for China 8.4%.

Table 1 highlights the sample responses regarding perceived travel risk during COVID-19. Exploring both domestic and international travel, there was a significant difference between the two types of travel. Participants were impartial towards domestic travel being avoided at the time of completion, but still, the cohort believed that U.K. travel was risky at the time of completion. Our findings suggest that international air travel was considered riskier. Additionally, participants suggested that they had some concerns about travel by air and a large proportion of the respondents believed that people around them were refraining from international air travel because of Coronavirus.

Item	Mean	SD	Cronbach's Alpha
			0.811
Traveling in the UK is risk right now	3.19	1.00	
Domestic travel is just as risk as international travel right now	3.16	1.21	
Because of Coronavirus, domestic travel should be avoided right now	3.06	1.16	
Because of Coronavirus, international air travel should avoid right now	3.61	1.21	
I am concerned about Coronavirus during travel by air right now	3.44	1.25	
It is dangerous to travel internationally by air right now because of Coronavirus	3.54	1.14	
People around me seem to refrain from domestic travel right now because of Coronavirus	3.53	1.07	
People around me seem to refrain from international air travel right now because of Coronavirus	4.10	0.97	

Table 1. *Perceived travel risk*

Table 2 presents participants' perceptions about susceptibility to COVID-19. The responses highlight that generally, respondents agreed that their chances of being exposed to Coronavirus was high if they travel. Respondents were less likely to report that they believed they would contract Coronavirus if they travelled in the following weeks. Furthermore, participants were neutral when suggesting that they would not get sick if they travelled in the next few weeks and contracted the virus. When considering the likelihood of contracting the virus when travelling domestically, participants perceived they were less likely to contract the virus than when traveling internationally by air.

Item	Mean	SD	Cronbach's Alpha
			0.810
My chances of being exposed to Coronavirus is high if I travel	3.47	0.98	
It is likely that I will contact Coronavirus if I travel in the next few weeks	2.90	1.03	
It is likely that I will be exposed to Coronavirus if I travel in the next few weeks but I will not get sick	3.01	0.99	
It is likely that I will contract Coronavirus if I travel in the UK in the next few weeks	2.73	0.99	
It is likely that I will contract Coronavirus if I travel internationally by air in the next few weeks	3.23	1.08	

Table 2. *Perceived susceptibility*

Table 3 showcases the cohorts' response when considering the perceived severity of contracting COVID-19 and the implications on their health and those around them. Respondents noted that they did not feel imminent threat to their lives should they contract COVID-19. Interestingly, the cohort expressed concern of those around them contracting the virus and potentially dying. Participants

generally viewed themselves as healthy not believing that they were at higher risk of dying based on their general health. Finally, the participants thought that Coronavirus is a very frightening disease and there was concern over the impact the virus could have on them or those around them.

Item	Mean	SD	Cronbach's Alpha
			0.796
If I get sick from Coronavirus, I will die	1.89	0.86	
I am afraid that I may die if I contact Coronavirus	2.33	1.20	
If I test positive for Coronavirus, I could pass it to my family and friends who may die	3.99	0.99	
I am at greater risk of dying if I contact Coronavirus because of my general health	1.79	0.97	
Coronavirus is a very frightening disease	3.45	1.10	

Table 3. *Perceived severity*

Also, participants were asked to rate their agreeableness surrounding their self-efficacy and COVID-19. Primarily, all respondents strongly agreed with all statements. Firstly, the instrument explored the individual's perception of understanding health instructions about Coronavirus protection, with the majority agreeing or strongly agreeing with the statement. Secondly, participants were confident they knew what activities could prevent contraction of Coronavirus and that they were in prepared to take action to prevent contraction of the virus. Participants believed that they could effectively identify symptoms of Coronavirus and they strongly believed that they knew what to do if they suspect they have been exposed to Coronavirus.

Item	Mean	SD	Cronbach's Alpha
			0.806
I am confident that I can understand health restrictions about Coronavirus prevention	4.36	0.64	
I know what activities could prevent contracting Coronavirus	4.28	0.69	
I am confident that I am able to take action to prevent contracting Coronavirus	4.28	0.67	
I am able to identify the symptoms of Coronavirus	4.20	0.78	
I know what to do if I suspect I am exposed to Coronavirus	4.22	0.88	

Table 4. *Self-efficacy*

Finally, when considering paying more for safety during travel, the responses differed when considering domestic and international travel. Regarding personal safety when travelling in the U.K., 10.2% strongly disagreed that they would pay extra to increase their safety, 24.8% disagreeing and 24.3% neutral. Only 9.2% strongly agreed with the statement and 31.3% agreed. When considering international travel, respondents reported being more likely to pay extra to increase their personal safety. A total of 61.5% of respondents agreed or strongly agreed that they would pay more, 18.1% of

respondents were neutral and 19.8% of respondents selected disagree or strongly disagree as their choice. Over half of the sample (58.9%) indicated that they would pay more to increase their personal safety during flying with 19.9% strongly agreeing and 39% agreeing. Only 6% of respondents strongly disagreed and 16.4% disagreed with paying more. Finally, 18.4% suggested that they were neutral. Also, the cohort showed a strong willingness towards paying more to ensure safety within their accommodation. A total of 18.4% strongly agreed and 43.7% agreed. Those who were neutral represented 16.1% and those who disagreed or strongly disagreed represented a total of 21.4%.

Item	Mean	SD	Cronbach's Alpha
			0.912
I would pay more to increase my personal safety during UK travel	3.04	1.159	
I would pay more to increase my personal safety during international travel	3.58	1.106	
I would pay more to increase my safety during flying	3.51	1.158	
I would pay more to increase my safety at my hotel or accommodation	3.54	1.117	

Table 5. *Paying for travel safety*

CONCLUSIONS AND RECOMMENDATIONS

The findings of the study provide a clear insight into the perceptions and feelings of U.K. based Generation Z consumers and travel following the COVID-19 pandemic. Given the lack of studies conducted on COVID-19, the research increased critical understanding surrounding the problem highlighting possible solutions and recommendations. The findings suggest that Generation Z are more concerned with travelling internationally than domestically. While the cohort believe that they may be susceptible to catching the virus when travelling, they also believe that they have sufficient information to minimise their risk. Furthermore, when considering the effects of COVID-19 on their health, the sample believed that they are not likely to face significant illness or death should they catch the virus. The cohort expressed concern of those around them including friends and family members if they were to become infected. At the time of the data collection, the sample were less inclined to travel internationally within the next six months compared to the next twelve months. In contrast, to earlier research (Cahyanto et al., 2016) which suggested minimal interest in changing travel plans as a response to SARS, our research suggests that the scale of Coronavirus has altered these views slightly. Research findings demonstrated that individuals showcase a strong willingness to pay more in order to increase personal safety during international travel. However, domestically, the respondents show less interest in paying to increase their safety. The research showed that there is typically more risk associated with travelling internationally than domestically, thus, individuals are less likely to pay

additional amounts. More specifically, when travelling internationally, individuals expressed a clear interest in paying more to increase their safety at their accommodation or hotel during their vacation. Following the coronavirus pandemic, long-haul international travel such as the USA, Asia and China has lost favour to short-haul, European destinations. Destinations may be selected based upon the level of new virus cases, deaths and travel restrictions associated with the particular location.

The study has detected a number of key areas in which managers within travel organisations can carefully develop and implement ideas in order to gain a competitive advantage should the pandemic continue or post-pandemic. Tour operators and those managing travel organisations should seek to develop products and services that are available domestically or within Europe. With a much lower risk associated with travel within the United Kingdom, organisations targeting youth travellers could seek to develop authentic experiences throughout the UK. Furthermore, with Europe currently being significantly more popular than long-haul destinations, tour operators or travel organisations should seek to establish products and services at European destination. In order to develop further trust within the market, tour operators and travel organisations should communicate the way in which they are dealing with the pandemic and the effectiveness of their efforts. The research highlighted the concern of passing the virus on to friends and families. Such concerns could be managed more effectively by the introduction of additional protective measures such as rapid testing. Additional costs associated with such protective measures could be implemented into various stages of the customer's vacation including arrival and departure at the airport and arrival and departure at the hotel. The Generation Z cohort has expressed a willingness to pay more to protect their health during flying and at their accommodation.

The COVID-19 pandemic has been unpredictable and unprecedented change throughout the world. As a developing situation, the United Kingdom has gone from implementing to lifting restrictions and then back to implementing and lifting restrictions again. This developing situation suggests that consumer perceptions and beliefs may change depending on the situation of the pandemic. As restrictions become more prominent and cases rise, the views of respondents may change. The researchers believe that further research may be conducted once a vaccine has been produced or following a greater amount of time when scientists and health professionals have a more detailed understanding of the virus and its effects. This research can be replicated in its entirety at another point in time in order to see how perceptions and concerns have changed over time. Additionally, the research could be replicated for other demographics in order to understand their travel behaviours and how managers within travel can access these customers. For instance, following the introduction of quarantine measures following the return from a high risk zone, are retired people the more likely to

travel to enjoy locations and have the ability to quarantine when at home rather than those who are expected to work, or would the risk of catching the virus deter such demographics from travelling?

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THE LEGALITY OF “LOCKDOWN REGULATIONS” DURING THE COVID -19 PANDEMIC: ARE THEY FAIR AND JUSTIFIABLE?

Van der Bank, Christiena¹; Van der Bank, Marjone²

¹Faculty Human Sciences

²Department Legal Studies

ABSTRACT

As fundamental rights are not absolute, but subject to restriction by other rights and the legitimate needs of society, not all infringements are unconstitutional. Since the South African Government did not declare a State of Emergency, but a State of Disaster in terms of the Act, s 36 applies.

If the government wishes to demonstrate that the restriction of the fundamental human right is constitutionally justifiable, s 36(1) requires that the government must answer at least two questions satisfactorily. The first, is the restriction taking place in terms of law of general application? Secondly, is the limitation reasonable and justifiable in an open and democratic society based on human dignity, equality and freedom, taking into account all relevant factors, including the nature of the right; the importance of the purpose of the limitation; the nature and extent of the limitation and whether there are less restrictive means to achieve the purpose (s 36(1)(a)). The only way the initial lockdown may have been justified and has served the purpose of ‘flattening the curve’. The harm being done to millions of South Africans includes widespread and pervasive infringement of citizens’ fundamental human rights to dignity and freedom of movement.

The limitation of fundamental human rights must achieve benefits that are proportional to the cost of the limitation. The infringement will not be considered proportional if there are less restrictive, but equally effective means to achieve the same purpose. There are numerous countries and states that implemented significantly less costly and restrictive lockdowns than SA, yet achieved the same or better results than SA.

It is my view that many of the arbitrary lockdown regulations are unconstitutional and unjustifiable.

Keywords: Disaster, Limitations, Lockdown, Proportionality, Rationality test, State of Emergency and Unconstitutional.

BACKGROUND AND PROBLEM STATEMENT

2020 was a year of rules and restrictions the likes of which no one could have anticipated. The World Health Organisation 2020, seeing the alarming severity of the coronavirus spreading many countries on March 11, 2020 announced it is now a global pandemic (WHO, 2020).

Thursday March 5 2020, Minister of Health, Zweli Mkize confirmed that a suspected case of COVID-19 has tested positive. The patient is a 38-year-old male who travelled to Italy with his wife. (<https://citizen.co.za/news/2251127/24-hours-in-pictures-5-march-2020/>)

On 15 March 2020, Dr Nkosazana Dlamini Zuma, as Minister of Cooperative Governance and Traditional Affairs and, as such, the Minister designated in terms of section 3 of the Disaster Management Act 57 of 2002 ("the Act), declared a National State of Disaster, citing special circumstances warranting such declaration in terms of section 27(1)(b) of the Act (Ramaphosa, C; 15 March 2020).

On 23 March, President Cyril Ramaphosa announced that South Africa would enter a nationwide lockdown for 21 days with effect from midnight on 26 March. To ensure that measures announced were implemented, President Ramaphosa also announced the deployment of the South African National Defence Force to support the South African Police Service (Ramaphosa, C; 23 March 2020).

Reported human rights abuses were characterised by the COVID-19 controls and lockdowns in some countries of the world (Odigbo, B; 2020). On 27 April, United Nations High Commissioner for Human Rights, Michelle Bachelet, denounced 15 countries in the world for unacceptable human rights violations and a 'toxic lockdown culture'. South Africa was singled out as one of the worst perpetrators (Emma Farge, (www.reuters.com accessed 20 March 2021)). According to Gagnon the U.N. has received reports of police using rubber bullets, tear gas, water bombs and whips, to enforce social distancing, especially in poor neighbourhoods. Thirty-nine complaints including murder, rape, use of fire arms and corruption are being investigated were investigated (Emma Farge, www.reuters.com accessed on 29 April 2021). The lockdown and curfew enforcements were not significantly respectful of human life and human dignity (Odigbo, B; 2020).

The 15 countries varying from disasters and the variety of measures that may have to be taken to address their different effects. The legal principal is that in every instance where the power to make regulations are exercised it must be rationally related to the purpose for which that power was conferred upon. In South Africa where the exercise of public power infringes or limits a constitutionally entrenched right, the test in terms of section 36 of the Constitution is where such a limitation is reasonable and justifiable in an open and democratic society base on human dignity, equality and freedom (Section 36, Constitution 1996).

A review of the constitutions of some of the 15 countries shows that the lockdowns and curfew enforcements was significantly lawful, to the extent that it was covered in their constitutions. For instance, (Section 305, article 1, 3a, 3b, 3c of the Nigerian Constitution, 1999) gives government the rights to declare curfew in emergencies or when there is enormous threat to national security or to citizens. Countries hid under these local and international laws to declare covid-19 lockdowns and curfews, since WHO Director-General declared the pandemic a global emergency (WHO,2020). However, fearing that these powers could be abused, a group of United Nations human rights experts, warned countries not to suppress peoples' rights under the cover of emergencies(Aljazeera, 2020b; Human Rights Watch, 2020f; OHCHR, 2020; WOLA, 2020). In South Africa there were increased violence against women during COVID-19 lockdown and emergency (The Economist, 2020a). All these are at variance with the United Nations (1948) Universal Declaration of Human Rights, and other international instruments, charters and covenants on human rights (Article 1,3,5,9 of Universal Declaration on Human Rights, 10 December 1948).

UNCONSTITUTIONAL AND INVALID ALERT LEVELS.

The Statement written by Director Lucien Lewin and Associate Director Matthew Thomson, at Dingley Marshall, that all alert levels are unconstitutional and invalid because they “in a substantial number of instances are not rationally connected to the objectives of slowing the rate of infection or limiting the spread thereof” and that, insofar as the regulations “do not satisfy the “rationality test”, their encroachment on and limitation of rights guaranteed in the Bill of Rights contained in the Constitution are not justifiable in an open and democratic society based on human dignity, equality and freedom” asked us to look at the unconstitutionality of alert levels. (Lewis, L and Thomson M, L; 26 June 2020).

The more severe the limit on fundamental rights of liberty, the more highly desirable it is that it should be imposed only pursuant to specific statutory authority. It is not enough only that such a severe limit is reasonable in the circumstances – we should require Parliament to make that judgment, and to be accountable for it. Given the unprecedented nature of the lockdown restrictions on liberty, if there is ever a case for insisting on such specific authority, this would have to be it. (<https://www.libertyhumanrights.org.uk>, 2020).

First, where the objective being pursued by the limit (saving thousands of lives) is not only extremely important but also extremely pressing and urgent, that provides an additional argument in favour of ambiguous words as sufficient to authorise limits on rights that are reasonable or proportionate means for serving that objective. To strengthen the response and save lives, national and local authorities must continue to apply WHO's transmission classification model while learning

from each other's successes in preventing and controlling hot-spots and clusters, which account for the majority of new cases (<https://www.who.int/southeastasia/news/opinion-editorials/detail/steel-the-covid-19-response-to-save-lives-and-build-a-stronger-recovery>, 2020).

Secondly, the more draconian the limits on liberty that are required by an emergency, the less likely it is that lawmakers would feel comfortable to specifically authorise such limits in advance of the emergency, lest they be used for nefarious purposes (McLean, J; 2020). The very same rights-protecting instincts that lead courts to require clear and express words to authorise limits on rights are also likely to lead Parliaments to decline providing such authority in advance – even assuming that the need for the limits is anticipated. When the life of the nation is threatened, we must consider all relevant factors (Bachelet, 2020). Disaster can warrant temporary centralisation of democratic power, limitations of rights and deviation from processes, but it cannot justify this near-total neglect of the Constitution's ultimate purpose. For an authority to restrict the exercise of its powers in this way, to imagine its function as being limited to finding a balance between lives and livelihoods, is to totally misconstrue its constitutional duties and powers. It is to operate under an error of law (Nguimkeu and Okou, 2020).

An approach based on them may allow courts to uphold the legality of lockdown measures, provided that those measures are proportionate to the crisis being addressed, and that they serve the purpose of the empowering provisions and fall within one of the plausible readings of those provisions. Proportionality is a tool, not a mathematical formula; an aid to analysis, not a machine which will spit out neatly packed answers to difficult questions; a means of better understanding value-laden policy issues, not of providing definitive resolutions (Islam, 2017).

The proportionality principle consists of two main steps, procedural and substantive legal balancing. To comply with procedural rights and obligations, legal and administrative actors should make determinations in a transparent, objective, and impartial manner (Gunnarsdottir, *et.al.*, 2020). First, define the objective of the government action and consider whether it is legitimate and important. Fighting COVID-19 is then an appropriate objective. Depending on how you defined the objective it could be fighting COVID-19 without causing undue economic harm. Second, consider whether there is a rational connection between the objective being pursued and the means used to pursue it. Does the extension of quantitative easing serve the goal of keeping the economy on live support? Third, ask whether the government action is necessary to achieve the objective. In human rights cases, it requires that government action minimally interferes with a protected right which stands in the way of achieving the objective. It is useful to ask whether there are alternative, less dramatic, means of achieving the government objective in question. In times of crisis, any government should be afforded a margin of appreciation, especially where there is a high degree of uncertainty

about the spread of Covid-19 and its economic effects. Government invocations of emergency powers are and should be, such legislation teaches, subject to scrutiny. Fourth, balance the public interest sought to be advanced against the impact on individual interests.

Most importantly, the outcome of a proportionality analysis can shift over time as more evidence comes to light. In the current crisis, where human understanding of Covid-19 remains limited, it is critically important to keep a close eye on the evidence and update priors accordingly.

It could be argued that the COVID-19 regulations have interfered with the right of people to earn a living, the Constitution guarantees the right to participate in any trade of your choice and earn a living. The legal action that can be taken is to challenge the regulations on the basis that the current regulations infringe on the right to earn a living and trade. However, they must demonstrate to the court of law how these regulations have unfairly discriminated against them and how it has interfered with these rights. No right is unlimited, one must show that the regulations amount to an unjust limitation of their rights as enshrined in the Constitution (Rautenbach, 2017).

The obvious counter argument is that the needs of an emergency can be addressed after it arises by urgent bespoke legislation conferring the powers that have turned out to be necessary. This option needs to be considered in judging each situation. However, first, there may indeed be cases where urgency and circumstances make emergency legislation impracticable. Even where it is practicable, it may not necessarily be much better than making delegated legislation under existing more general powers. Urgent legislation involves at least a risk of conferring excessive powers subject to inadequate safeguards, which may compromise the courts' ability to subsequently judge the reasonableness and justification for measures adopted pursuant to those powers. Government-ordered lockdowns have become increasingly unpopular as countries suffer rising unemployment and economic activity grinds to a halt also in South Africa (Egbewole, 2020).

THE LEGALITY OF THE “LOCKDOWN REGULATIONS”.

The making of regulations and the issuing of directives by the Minister in terms of the Disaster Management Act are subject to the following limitations:

They may only be made after consultation with “the responsible Cabinet member”, responsible for each specific functional area of jurisdiction (Section 27(2) of the Disaster Management Act).

The power to make regulations and directions “may be exercised only to the extent that this is necessary for the purpose of –

- (a) assisting and protecting the public;
- (b) providing relief to the public;
- (c) protecting property;

- (d) preventing or combating disruption; or
- (e) dealing with the destructive and other effects of the disaster” (Section 27(3))

The regulations and directions may not go beyond that expressly provided for the enabling section in the Disaster Management Act (Disaster Management Act).

Under the Constitution, law-making and executive power ordinarily vests in Parliament and the Executive. The Disaster Management Act, on the other hand, vests extraordinarily wide-ranging legislative and executive powers in the Minister of Cooperative Governance and Traditional Affairs, to deal with issues arising out of disasters. The power was pass to the Minister while we have a sudden threat by COVID-19 and therefore could be justified. The cases on the role of Parliament — identical in the high court and the Constitutional Court — are different to the challenges to specific aspects of the lockdown. In the Constitutional Court case, the merits and demerits of specific regulations are not in issue, the issue is a bigger one: on the role of the legislature during a state of disaster. This basic departure from the Constitution's separation of powers can only endure for a limited period, namely, until Parliament and the Executive can gather themselves and exercise their legislative and executive functions in relation to threats posed by COVID-19 (Rabkin, 2020).

Parliament has a duty to pass legislation that regulates concretely the state's response to the threats posed and harm caused by COVID-19, while the Executive has a duty to prepare and initiate this legislation, for consideration, debate and ultimate passage by Parliament. The Executive would then have a duty to implement that legislation. In terms of the Constitution, both Parliament and the Executive have central roles to play in the state's response to COVID-19. An event is disastrous not just because it causes or embodies something bad. In addition to this, its appearance must be such that it cannot be predicted, or its effects cannot reasonably be controlled.

Our Constitution is the most important and the supreme law of the land. No other law may conflict with it. Government may not do anything that violates the Constitution and therefore we can refer to it as constitutional supremacy. All law or conduct that is inconsistent with it is invalid, and the obligations imposed by it must be fulfilled.

The Disaster Management Act 57 of 2002 intends to provide for: An integrated and co-ordinated disaster management policy that focuses on preventing or reducing the risks of disasters. Mitigating the severity of disasters, emergency preparedness, rapid and effective response to disasters and post - disaster recovery; the establishment of national, provincial, and municipal disaster management centres:

- Disaster management volunteers; and
- Matters incidental thereto (Disaster Management Act, 2002).

The Disaster Management Act under which members of the executive have locked the nation down, is subject to the Constitution. If this power is not exercised lawfully and rationally, it is invalid. However, when deciding to make regulations or directions for one or more of these purposes, there must be a rational connection between the regulations or directions and the purpose they are made for, that is the rationality test. In other words, the end must justify the means and if it is not possible to completely prevent the spread of the COVID-19 virus, it must at least be limited whilst maintain social cohesion and economic viability. To exercise power lawfully and rationally, not just the purpose for which it is exercised but the process by which it is exercised must meet certain conditions: Whatever the case may have been when we first were confined to our homes, recent policy and regulations reveal that the lockdown now both exceeds and falls short of the purpose, constitutionally understood, of the Disaster Act.

The policy and regulations also show that the process by which the decision to extend the lockdown beyond 1 May 2020 was irrational, for they evidence the failure to consider constitutionally essential considerations. On 1 May, level 4 came into effect and on 1 June, level 3 came into effect. South Africa's level 4 was significantly more stringent and invasive than the full lockdown regulations imposed by most countries around the globe. Many of the lockdown regulations, such as specified times as to when one was allowed to run or walk, where one was allowed to walk, the curfew that was in place between 8 pm and 5 am, and that retail stores were only being allowed to sell certain items but not others, including the ban on the sale of alcohol and cigarettes seemed to be nonsensical arbitrary rules. The COVID epidemic thus far will lead to a sharp decrease in employment and earnings over the medium term, and possibly longer, is open to reasonable doubt.

This failure of purpose and process means that whatever one might think of the lockdown as a matter of fact, it is unconstitutional as a matter of law. The ban may have been a strategic mistake, as it could have contributed to the hardening of public attitudes towards the lockdown, thus turning a public health emergency into a matter of law and order.

DE BEER AND OTHERS V MINISTER OF COOPERATIVE GOVERNANCE AND TRADITIONAL AFFAIRS (21542/2020) [2020] ZAGPPHC 184 (2 JUNE 2020)

Pertinent facts of the case

An urgent application was brought to North Gauteng High Court on 28 May 2020 by Reyno de Beer and the Liberty Fighters Network (of which de Beer is the President) (as applicants) and the Hola Bon Renaissance Foundation (as *amicus curiae* (friend of the court)) to declare the State of Disaster and the regulations declared unconstitutional, unlawful, and invalid.

The Minister was the respondent. On 2 June 2020,

Judge Davis in a sitting of the Gauteng Division of the High Court, handed down a judgment declaring invalid the regulations made by the Minister of Co-operative Governance and Traditional Affairs in terms of the Disaster Management Act, 57 of 2002 on the 2 June 2020. He ruled that the way the Regulations curtailed the constitutional rights of the public (in particular the rights to freedom of movement, association and economic activity) bore no rational relationship to the objective the Regulations the intended to achieve, namely, to slow the rate of infection and curtail the spread of the COVID-19 virus.

Findings of the Court

He upheld the declaration of a state of emergency by the Minister, but declared the Regulations invalid, with the exception of:

Regulation 36 (prohibiting eviction from residential premises);

Regulation 38 (prohibiting initiation practices);

Regulations 39(2)(d) and (e) (closure of night clubs and casinos) and

Regulation 41 (closure of national borders).

The Minister has been given a period of 14 days to review, amend and republish the Regulations “with due consideration for the limitation each regulation has on the rights guaranteed in the Bill of Rights contained in the Constitution” (Alert Level 3 lockdown regulations). During this period the Alert Level 3 lockdown regulations published on 28 May will remain in effect.

Relief sought by the applicants

The applicants sought the following relief:

That the State of Disaster be declared unconstitutional, unlawful and invalid;

That the regulations be declared unconstitutional, unlawful and invalid;

That gatherings be declared lawful, alternatively allowed subject to conditions;

That all businesses, services and shops be allowed to operate, subject to reasonable precautionary measures.

Basis for relief

In the De Beer case the applicants based their constitutional challenge to the Disaster and the regulations on two main legal arguments: rationality and the constitutional limitations test (**De Beer and Others v Minister of Cooperative Governance and Traditional Affairs (21542/2020) [2020] ZAGPPHC 184 (2 June 2020)**). The rationality test requires that there be a rational connection between the action and the purpose for which it was taken. Whereas the limitation test requires that, where a public power infringes Constitutional rights, such infringement must be “justifiable in an open and democratic society based on human dignity, equality and freedom”. Should the rationality test fail, then, according to the High Court, it would naturally follow that the limitation test would also fail (Maud-Pia H, 2020).

Rationality

The Minister was subject to certain limitations provided for in terms of the Act and that it was necessary for the purpose of the following four grounds: assisting and protecting the public; protecting property; preventing or combating disruption; or dealing with the destructive and other events of the disaster.

Vuyani Ngalwana SC contends: *“The question that arises is whether this disruption meets the rationality and constitutionality test in terms of South African law”. Many people may say some disruption of life as we know is necessary to save lives. But the question is not whether it is necessary to subject the entire nation to such considerable disruption of people’s economic and recreational lives, which creates a significant moral dilemma; the more vexed question is whether such considerable disruption is reasonable and justifiable in an open and democratic society based on human dignity, equality, and freedom. Strictly speaking is there a rational connection between the intervention, on the one hand, and the empowering provisions in terms of which it was taken, on the other? As regards the conduct of officials deployed to enforce the intervention, the test will be whether such conduct gives effect to the regulations. Where there is no empowering provision for the intervention, the intervention will be unlawful and may be set aside on application to the high court. It is now settled law that no person may exercise a public power or perform a public function beyond that conferred upon him or her by law (Le Roux, 2020).*

The court held that if there is no rational connection as set out above, the limitation of rights which the regulations require would not be a permissible limitation in terms of section 36 of the Constitution. The court ultimately found that there was no such rational connection. It did so for the following reasons (Section 36 of the Constitution, 1996).

In the answering affidavit, the Director General (DG) of Cooperative Governance and Traditional Affairs (on behalf of the Minister) stated that *“in determining whether the decision of the [Minister] is rational, the test is objective and is whether the means justify the ends.”* which at some point seem to cause confusions in the legal fraternity. Among other confusions that exist is what constitutes “rationality” in law, what factors are relevant in defining rationality, how has rationality been defined and how has it been applied? The thesis explores various instances where our courts particularly the Constitutional Courts and the Supreme Court of Appeal has defined and applied the rationality test when testing for the exercise of public power by the public functionaries (**De Beer and Others v Minister of Cooperative Governance and Traditional Affairs (21542/2020) [2020] ZAGPPHC 184 (2 June 2020)**)).

Our courts have held that rationality is a central principle under the principle of legality which is an implicit term to the study of the rule of law. The rule of law itself has been held to be an implicit term to the Constitution of the Republic of South Africa and that all actions will only be valid if they

comply with the rule of law as a constitutional value thereof. However, this is not to imply that other values of the constitution like transparency, openness and accountability are less important than the rule of law but most litigation has occurred under rule of law, hence why the focus of this thesis is on the rule of law. In defining what legality rationality is, our courts have pronounced that it is a legal safety-net applicable to every exercise of public power but more particularly where no constitutionally defined right has been violated, it protects individuals against the abuse of power.

De Beer appeared in person and the Minister he sued did not respond herself. A civil servant swore the “the ends justify the means” when it comes to locking down the whole country. When he was questioned about it and testify that it was no slip of the pen and further that the Minister had no intention to say what is meant by “the ends justify the ends”. In business ethics, do the means justify the ends, or do the ends justify the means? Is it better to have a set of rules telling you what you ought to do in any situation and then let the chips fall where they may, or should you worry more about how things are going to end up and do whatever is necessary to reach that goal? (<https://courses.lumenlearning.com/masterybusinesslaw/chapter/the--means-justify-the-ends-versus-the-ends-justify-the-means/>). She then goes on to state that “*under the circumstances, the means justify the ends*”. The court questioned whether the DG had meant to say that the ends justify the means, rather than the other way around.

In business ethics, the question is asked: do the means justify the ends, or do the ends justify the means? Isn't it better to have a set of rules telling you what “ought” to do in any situation and let the chips fall where they may, or should you worry more about how things are going to end up and do whatever's necessary to reach the goal? In reference to a previous Constitutional Court judgment, the court reiterated that “*courts are obliged to examine the means selected to determine whether they are rationally related to the objective sought to be achieved*”. Implicitly, the court believed that the means could not justify the ends (as seem to be alleged by the Minister) where such means constituted an impermissible limitation of the rights of South African citizens.

In applying the rationality test, the court commented on, amongst others, the following real circumstances experienced by South Africans:

Furthermore, the court commented that there are millions of South African who operate in the informal sector. In this regard, there are “*traders, fisheries, shore-foragers, construction workers, street-vendors, waste-pickers, hairdressers and the like who have lost their livelihood and the right to ‘eke out a livelihood’*”. Their contact with other people is less on a daily basis than for example the attendance of a single funeral”. The blanket ban imposed on them as opposed to the imposition of limitations and precautions also (in the view of the court) appeared to be irrational.

In consequence of these and other practical circumstances referred to by the court, it was held that, from a mere reading of the regulations, even the Alert Level 3 regulations, there are many more instances of sheer irrationality in such regulations.

Given the irrationality of the regulations as set out above, the court held that *“in an overwhelming number of instances the Minister has not demonstrated that the limitation of the Constitutional rights already mentioned, have been justified in the context of section 36 of the Constitution”*.

Conclusions and the Order granted

As consequence to the above, the court found that the regulations *“in a substantial number of instances are not rationally connected to the objectives of slowing the rate of infection or limiting the spread thereof”* and that, insofar as the regulations *“do not satisfy the “rationality test”, their encroachment on and limitation of rights guaranteed in the Bill of Rights contained in the Constitution are not justifiable in an open and democratic society based on human dignity, equality and freedom”*. The challenge, then, is to design a constitutional provision that enables rights to be prudently limited to the extent necessary to protect the public good and the rights of others without undermining essential human rights or the civil liberties that provide the foundation for a free society. This can be achieved through a so-called limitation clause, a provision that constrains and empowers legislatures and the courts by: (i) allowing specific limitations on rights; and (ii) placing limits on such limitations, thereby protecting the right against excessive restrictions ([http:// constitutionnet.org/sites/default/files/limitations_clauses](http://constitutionnet.org/sites/default/files/limitations_clauses)).

The court ordered the following:

That the regulations (meaning all of the regulations, all alert levels) were declared unconstitutional and invalid;

That the declaration of invalidity above is suspended until the Minister reviews, amends and republishes the regulations with consideration of the limitation each regulation has on the rights guaranteed in the BoR;

The Minister was given 14 days to review, amend and republish the regulations; During those 14 days, the Alert Level 3 regulations shall continue to apply and The Minister was ordered to pay the costs of the applicants.

Practically, this means that for the next 14 business days, South Africans will continue to live under the regulations of Alert Level 3. Before the expiry of those 14 days, the Minister must republish regulations which give due consideration to the rights guaranteed in the BoR. This will require the Minister, in consultation with the relevant cabinet ministers, to carefully consider each and every regulation she publishes and the effect such regulation has on our rights.

The court found that the Minister's declaration of a National State of Disaster in terms of section 27(1) of the Act, in response to the COVID-19 pandemic, was rational. Given the findings above, the court did not deem it necessary to make an order relating to the prohibition of gatherings.

The order of constitutional invalidity and the Minister's right of appeal

In providing for a suspension of the declaration of invalidity in accordance with section 172(1)(b)(ii) and allowing the Minister an opportunity to remedy the failings of the regulations, the court has noted that "Courts must always remain alert to the principles of separation of powers" and that "Any remedial action...should be taken by the Minister". In so doing, the court has upheld the separation of powers doctrine, central to our constitutional democracy, whereby the powers of government are split among the executive, the legislature and the judiciary. In *Electronic Media Network Limited and Others v e.tv (Pty) Limited and Others* [2017] ZACC 17 a court "*but one of three branches of government...must be on high alert against impermissible encroachment on the powers of the other arms of government*".

As the regulations, published by the Minister, are neither an Act of Parliament, a provincial Act or conduct of the President, this order does not need confirmation by the Constitutional Court, in terms of section 172(2)(a), in order to be effective. The Minister does, however, have the right to appeal the decision of the court or to approach the Constitutional Court for a direct appeal in terms of section 167(6)(b). Given the far-reaching consequences of the judgment we would imagine that an appeal from the Minister is likely.

All these are at variance with the Universal Declaration of Human Rights, and other international instruments, charters, and covenants on human rights (United Nations, 1948).

RECOMMENDATIONS

The limitation of fundamental human rights must achieve benefits that are proportional to the cost of the limitation. The infringement will not be considered proportional if there are less restrictive, but equally effective means to achieve the same purpose.

Every nation of the world should use social marketing campaigns to mass-educate and enlighten their people more on the realities of the coronavirus, and the consequent dangers of ignoring its preventive measures. When this message is sunk into the peoples' consciousness, it will make things easier for law enforcement officers enforcing COVID-19 lockdowns and or curfews.

Social marketing should also be used to organize orientation programs for law enforcement officers enforcing the COVID-19 lockdowns and or curfews on basic human rights and humanitarian rights law, to enable them deal with civilians without breaches.

Human rights and humanitarian rights should characterize the implementation of the COVID-19 lockdowns and or curfews in every country.

Security forces in every nation should avoid the use of excessive force in enforcing lockdowns and curfews in their countries. No matter how disobedient or stubborn the people might be, the use of persuasive communications and mild force should suffice. Every nation must ensure that their lockdown and or curfew are significantly fashioned and enforced in lawful, necessary, and proportionate manners, in tandem with international conventions on human. Every nation must ensure that people in the country are guaranteed the right to the highest quality of health possible, no matter their economic, political, or social status.

South Africa must ensure that their COVID-19 emergency measures are not used to settle scores with political opponents, or against disadvantaged, minorities, or vulnerable people.

The COVID-19 lockdowns and curfews abuse human rights. The COVID-19 emergency declarations were discriminatory against minorities and vulnerable groups in South Africa.

Social marketing should be used to enlighten citizens of every country that to conquer the COVID-19, we must all come together as one and give each supporting hands. In this trying time, everyone in the world must resist the temptation to give in to stigmatization, xenophobia or selfishness. This is the time to be our brother's keeper much more than ever before, regardless of race, colour, creed, or religion.

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PRE-DECISIONAL COGNITIVE DISSONANCE SHAPING CONSUMER BEHAVIOUR WITHIN GENERATION Z: PRELIMINARY EVIDENCE

Vellore-Nagarajan, Durga; Priporas, Constantinos-Vasilios; McPherson, Mark

Department of Marketing, Branding & Tourism, Middlesex University Business School, Hendon, UK

ABSTRACT

The pilot study aimed to identify and conceptualise latent needs as cognitive elements arousing pre-decisional action-based dissonance states guiding healthcare decision-making choices among the Generation-Z cohort (Gen-Z). This qualitative study employed an abductive approach with face-to-face semi-structured interviews to understand the phenomenon of pre-decisional dissonance among members of the Gen-Z cohort in India. Interviews were conducted with seven participants, (mean age 22.9 years) using a semi-structured interview guide. Interview data were analysed with thematic analysis. Findings indicated pre-decisional dissonance states exist in the Gen-Z cohort and they are adept in recognizing and understanding the arousal, times and feelings associated with pre-decisional dissonance as a phenomenon within themselves in a procedural manner in relation to their healthcare consumer decision-making. The novelty of this study lies in the fact that it is the first to establish pre-decisional dissonance states as a phenomenon existing within a cohort. Furthermore, it is the first study to demonstrate how perception of cognitive dissonance orients healthcare consumption and decision-making in a cognitive heuristic cohort – Generation Z. The contributions of this study both theoretical and managerial are highlighted further on.

Keywords: Pre-decisional Cognitive Dissonance, Latent Needs, Generation Z, Healthcare, Healthcare Consumer Decision-Making Process

INTRODUCTION

The research objectives of this study are as follows: -

RO1. To establish pre-decisional dissonance states by identifying latent needs among generation Z in healthcare in the problem recognition stage of consumer decision-making.

RO2. To deduce how cognitive dissonance is recognized by generation Z as a cohort.

Recent investigations show that Generation Z (Gen-Z) is set to capsize almost every sector of the business world (Mendoza, 2019; Morriss, 2019). Whereas the materialistic characteristics of previous generations ushered in a want-based marketing framework (Bronwyn, 2017; Picchi, 2015) the minimalistic attitudes of the population of Gen-Z consumers (Desjardins, 2018; Pankowski, 2019)

warrant a more need-based approach to marketing. Consumer needs are categorised in two ways: explicit needs and latent needs. Explicit needs are those which are easy to communicate to the service provider or seller and are known to the consumer (Ahola, 2006); Latent needs are those the consumer is unaware of, and therefore cannot easily be articulated to the supplier (Ahola, 2006). All human beings have latent needs (Gardner, 2004). Being innately drawn inwards to make meaning of their feelings (Spotify, 2019), Gen-Z is more likely to act on their latent needs owing to the dissonance perceived overtly. These factors prompted us to focus our study on latent needs, considering its importance in arousing dissonance in an individual.

Cognitive dissonance has yet to be used in a pre-decisional study (Costanzo, 2013; Hasan and Nasreen, 2014; Nasir *et al.*, 2020). However, earlier research by Oshikawa (1970) suggests the understanding of mental factors that contribute to purchase behaviours is more important to businesses than the explanation of how consumers feel after a decision. In principle, Salzberger and Koller (2007) suggest that cognitive dissonance proved to be applicable in the pre-decision phase. However, there has been little implementation in terms of research, which may have several explanations. Costanzo (2013) suggests that the ephemeral nature of dissonance can cause it to occur at any stage in a consumer's decision-making journey. However, what needs to be understood is that cognitive abilities change from generation to generation (Fischer, 1980). Moreover, extant literature indicates cognitive dissonance has a strong evolutionary foundation (Egan *et al.*, 2007; Kaaronen, 2018).

This study posits the action-based model of cognitive dissonance into a pre-decisional scenario in today's digital native consumer whilst incorporating the understanding and intent of Leon Festinger's (1957) aspect of 'cognitive elements' as drivers for arousing cognitive dissonance. The action-based model is in line with theories in different arenas of psychology in recommending that perceptions and cognitions can induce activity propensity (Dijksterhuis and Bargh, 2001; Smith and Semin, 2004). Thus, if cognitive dissonance, based on the action-based model of dissonance and environment engagement, can persuade action (Mills and Harmon-Jones, 1999), then it should act as an antecedent to a highly cognizant sector of consumer decision-making in terms of healthcare. Thereby, enabling identification of pre-decision cognitive dissonance states among studied cohort, generation Z.

Further, Clark's (2016) inference that cognition exists especially to direct conduct, and that the "negative affective state of dissonance is stimulated by not only by psychological conflict but rather, especially, when discernments with action implications are at discord with one another, making it hard to act" further warrants the existence of the research problem in question. In line with the objectives of this study, we hope to answer two research questions:

RQ1. What are the latent needs (cognitive heuristic elements) arousing cognitive dissonance among Generation Z?

RQ2. How does Generation Z perceive and evaluate elements of cognitive dissonance?

CONCEPTUAL BACKGROUND

The action-based model of cognitive dissonance (Harmon-Jones, 1999) is the main conceptual frame of reference for this study, which is integrated with the understanding of the premise of 'cognitive elements' proposed by Festinger (1957). Two elements tie the concepts together: (i) Festinger's (1957) initial understanding of cognitive elements as drivers arousing dissonance and dissonance becoming a motivator for behaviour; and (ii) the notion that cognitive elements arousing dissonance already stem from a goal-oriented place (Chacko and McElroy, 1983; Flavell, 1999) due to brain and mind developments among generations (Piaget, 1936). Applying this notion of an action-based model of dissonance, with the understanding of cognitive elements of Festinger (1957) and their dissonance arousing capability, can we then say that the internal cues or "beliefs, inner knowledge" (Festinger, 1957, p. 10) are bound to perform the role of 'guides and drivers' of consumer decision-making from the moment they are felt? More specifically, in the need/problem recognition stage of the consumer decision-making process in a highly cognitive and reflexive cohort?

In order to logically bring an understanding, research studies on brain mapping and neural networks indicate that the anterior cingulate cortex (ACC) in the brain plays a vital role in monitoring the 'moment-to-moment' representations of activity inclination for potential processing clashes, so that other neurocognitive mechanisms may focus on overriding the unwanted tendency and to promote an effective goal-directed response by the brain (Botvinick *et al.*, 2001; Carter and Van Veen, 2007; Harmon-Jones and Amodio, 2009; Harmon-Jones *et al.*, 2008). Literature suggests that such brain functions affect cognition and emotions equally, thereby also indulging in bypassing cues to focus on the action to be completed, which in neurobehavioral terms is referred to as 'affect regulation' (Stevens *et al.*, 2011; University of Nevada, 2017). According to Stevens *et al.* (2011)

The anterior cingulate cortex (ACC) lies in a unique position in the brain, with connections to both the "emotional" limbic system and the "cognitive" prefrontal cortex. Thus, the ACC likely has an important role in integration of neuronal circuitry for affect regulation (p. 121).

Various studies indicate participants with stronger activity in the ACC have a greater perception of dissonance reactions and are bound to participate in controlled conduct (slower, progressively cautious reactions) (Amodio *et al.*, 2008; Harmon-Jones and Amodio, 2009). These studies provided a foundation for the understanding of the ACC and its conflict monitoring capacity (Amodio *et al.*, 2008; Stevens *et al.*, 2011; University of Nevada, 2017) as the brain's neural procedure underlining cognitive dissonance. Therefore, the result of inserting this neurobehavioral explanation into the context of pre-decisional research is that once a driver is felt (latent need in our case) it would be followed by dissonance and a

goal-oriented follow-up action (undertaken by the individual). Upon the feeling of a latent need (cognitive element/driver), the 'affect regulation' mode of the brain would take over, which would impact the flow and follow up on further content that can be processed by individuals. This is referred to as 'selective exposure' and 'information avoidance' (Kastenmuller *et al.*, 2008; Tsang, 2019).

Farah and Fellows (2005) used functional neuroimaging to demonstrate the connection of neural networks in humans, which indicated the dorsal anterior cingulate cortex (dACC) plays an important role in cognitive control. When a task requires ongoing allocation of attention, the dACC is activated and continuous adjustments are made (Farah and Fellows, 2005, p. 788). Thus, the activity of the ACC is a brain mechanism mediating cognitive dissonance via the action-based model in humans.

Research in neurobiology suggests that whilst the ACC functions to stimulate dissonance, dissonance is reduced by activity in the prefrontal cortex (PFC) (Kerns *et al.*, 2004). Purves *et al.* (1997) demonstrated the PFC has different functions, depending on the area: the ventral PFC moderates emotions and is directly connected via "emotional circuits" to the amygdala, nucleus accumbens, insular cortex and hypothalamus; in contrast, the dorsal PFC moderates complex cognitive tasks that require widespread system coordination, including problems of conflict. The dACC is connected to the PFC and parietal cortices, which function by associating and coordinating motor and sensory functions during conflict resolution (Purves *et al.*, 1997, p. 520). Thus, the connection of the ACC to other neural circuitry via the PFC functions as a regulator of affect during cognitive tasks by the process of 'affect regulation' (Stevens *et al.*, 2011).

GENERATION Z

The Gen-Z cohort is generally agreed to be comprised of individuals born from 1995 to late 2010 (Kamenidou *et al.*, 2019; Priporas, 2020). As a group, they are well-informed consumers (Antevenio, 2019; WGU, 2019) who exercise higher levels of caution prior to any purchase (Wearesocial, 2020; Wood, 2020). This purchasing behaviour, known as "concerned attention" (Gear *et al.*, 2017) results from Gen-Z having been witness to several social and economic disruptions. They are active healthcare consumers who require participation as a pre-requisite (Walters, 2019) and are educated to know more about their personal needs and can support themselves better (Robbins, 2019; Sinhasane, 2019).

Gen-Zers are highly focused on making meaning of their inner cues, feelings and experiences (Spotify, 2019; Wearesocial, 2020) with active affect regulation from the ACC, owing to heuristic reliance due to their habits (Dye *et al.*, 2008; Bayindir and Kavanagh, 2019), technologically advanced living conditions, and know-how (Priporas, 2020; Small *et al.*, 2009). The current digitized era presents Gen-Z consumers with the opportunity to begin their consumer experience before the purchase, which includes investigating products or services for attainable satisfaction of their needs on any gadget they

use and wherever they are geographically (Antevenio, 2019). The trend among these new age consumers, known as a 'hypercognitive race of individuals' (Francis and Hoefel, 2018) is to combine their own online searches with the influence of marketed information and product or service descriptions. Following these investigative steps, these Gen-Z consumers arrive at a final decision (Ozdemir, 2020). The internal stimulus for these searches is initiated by the consumer, which activates the second step of decision-making within the consumer, which is an information search. This is where the conceptualisation of the study can be seen to take shape within Gen-Z.

METHODOLOGY

Design

This qualitative study was guided by the literature (Creswell, 2013; Saunders and Thornhill, 2019) using an abductive approach to understand the phenomenon of pre-decisional dissonance among members of the Gen-Z cohort in India. An abductive approach overcomes weaknesses in inductive and deductive approaches by adopting a pragmatic perspective (Blaikie and Priest, 2017) and provides ample space to make changes whilst maintaining rigor to develop insight and knowledge of a new phenomenon (Ghauri *et al.*, 2020).

Participants

Members of the Gen-Z cohort were recruited by purposive sampling to obtain a broad range of perspectives of the Gen-Z cohort in India. Inclusion criteria were as follows: ≥ 18 years of age but ≤ 25 years, of Indian ethnicity, living in India for ≥ 3 years, minimum educational level of high school graduation, and consumers of various modes of healthcare due to medical circumstances. Exclusion criteria were consumers of allopathy exclusive of any other healthcare and those who had not graduated from high school. India is a diverse country, and the educational limitation was included to reduce parental influence of participants' personal beliefs.

Data Collection

Data were collected with audio-video recorded of face-to-face semi-structured interviews conducted. An interview guide containing 15 questions was used gain an understanding of how members of the Gen-Z cohort view their relationship to the concept of cognitive dissonance.

Data Analysis

Interview data were transcribed and analysed with thematic analysis (Braun and Clarke, 2006). Thematic analysis provides detailed and rich data by "identifying, analysing, and reporting patterns (themes) within the data (Braun and Clarke, 2006, p. 6). The perspectives of the seven participants were

identified, similarities and differences were determined, and key features (patterns) were summarized as themes.

RESULTS AND DISCUSSION

The mean age of the seven participants representative of the Gen-Z cohort was 22.9 years; 3 were male and 4 were female. Analysis of interview data demonstrated pre-decisional cognitive dissonance during alignment of need and choice of probable healthcare treatment was perceived and recognized by Gen-Zers as feelings of “uneasiness”, “incomplete”, “internal conflicts” and “impreciseness”. Furthermore, the cognitive heuristic elements arousing dissonance, which guided healthcare consumer decision-making were “life goal”, “passion”, “maintaining the pace of life” and “should be as before and more”. The extracted themes and corresponding literature are shown in Table 1.

Themes	Corresponding Literature
Scepticism	Tendency
Risk-aversion	Tendency
Self-confidence and Self-reliant	Tendency
Uneasiness	Pre-decisional Cognitive Dissonance
Feeling incomplete	Pre-decisional Cognitive Dissonance
Impreciseness	Pre-decisional Cognitive Dissonance
Internal Conflicts	Pre-decisional Cognitive Dissonance
Life Goal	Latent Need
Passion	Latent Need
Maintaining the Pace of Life	Latent Need
Should be as before and more	Latent Need

Table 1. Extracted themes from analysis of the interview data

Pre-Decisional Cognitive Dissonance Perception and Evaluation of Generation Z

Gen-Z participants regarded self-esteem as an important aspect, suggesting they had a high level of cognitive understanding. This finding is supported by a recent study showing increased self-esteem was necessary to enable perceiving cognitive dissonance in a pre-decisional context (Carpenter, 2019). The following quote provides insights in relation to RQ2 in how Gen-Z perceives the concept of cognitive dissonance:

I had lost all self-esteem and was depressed. Then one day, I thought what my goal is, what do I want to do...once my self-esteem came back, I took matters into my hands and started my search, with my goal in mind. I felt a lot of internal conflicts until I found the right one that fit my need, then, there was confidence and calmness. (RP2: 25-year-old female with a knee and foot injury; Ayurveda and Siddha Medicine Consumer)

This quote demonstrates the internal conflicts that guided the participant to not rest until she felt calm, certain and in consonance with her healthcare choice. This insight provides first-hand account of how Gen-Zers perceive/recognize within themselves of the existence of pre-decisional cognitive dissonance

(Mills and Harmon-Jones, 1999). Furthermore, it shows how latent need (goal) plays the role of a cognitive heuristic element aptly (Festinger, 1957) and enforces an action-based pre-decisional cognitive dissonance (Mills and Harmon-Jones, 1999) within generation Z.

Latent needs fall under the umbrella of cognitive heuristic elements due to their arena of existence being one of self-reflexive awareness (Khachouf *et al.*, 2015). As indicated by Scholz and Vyugina (2019), Gen-Z is highly self-actualised, therefore, based on Maslow's theory of hierarchy, their identified latent needs should not change. Life goals operated much differently for the cohorts of Gen-X or Gen-Y, wherein the cohort settled for the next best option. Furthermore, in this sense, the "goal" transforms into the "need" and initiates a drive to act. In essence, it proves to be a motivational cycle in the minds of Gen-Z. According to Shreshta, "Motivational cycle is a transition of states within an organism that propels the organism toward the satisfaction of a particular need" (Shreshta, 2017). In this cycle, the motivational state is comprised of "need", "drive", "incentive" and "goal". Now, when faced with a health complication that is felt to be a threat to their aspirations, a goal transforms into a necessity – a need. Because the individual feels low, depressed, and uncertain about their plans. Taking the example of RP2,

... once I went there (to the doctor) and when, after the two check-ups, the allopathic doctor said take these medicines, but you can't be fully cured, and they would ask me to use these orthotic kinds of slippers etc. (I thought to myself), 'I'm gone, no, not happening.' I'm not an old 80-year-old. I can't and won't give up because that's my passion – sports and dance. (RP2; knee and foot injury, consumer of Ayurveda and Siddha Medicine)

The description of RP2 is an example of the shift in the mindset of Gen-Z when a passion and goal is threatened. The feeling that circumstances will act as a roadblock becomes a motivation that drives their action to continue to search until till is an alignment between their needs. For instance, participant RP2 went on to say, "*... had to stay with my goal, passion and doing everything as before and more so started searching to find the right choice*".

In a nutshell, this is what Festinger described as seeing "cognitive elements as drivers arousing dissonance and dissonance becoming a motivator for behaviour" (Festinger, 1957, p. 10) establishing pre-decisional dissonance states. This can be combined with the action-based dissonance model (Mills and Harmon-Jones, 1999) in which the individual is in an increased momentum of 'completing the task at hand' (Harmon-Jones and Amodio, 2009).

This pilot study considered healthcare decision-making from the pre-decisional state, owing to previously derived affect regulation, and the understanding of a cognitive heuristic element (Chacko and McElroy, 1983; Flavell, 1999) stemming from a goal-oriented place.

Elements of Consumer Decision-making	Corresponding Mental States of Consumer Decision-making
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Process	
Need Recognition Stage of Consumer Decision-Making	Awareness of the problem tied to not being able to play football and having to get back to it. That is to say, - “need-driven”. i.e., cognitive element driven
No immediate action until evaluation of alternatives and information search	Wait, pause, and see if it gets healed in some time. Research and search everything stemming from scepticism towards doctors. Risk aversive-based, and awareness of need to get back to goal of life.
Information Search entailing evaluation of alternatives based on the awareness of the problem being backed by need to get to back to the goal	Processing bodily information and healthcare information in relation to need and fixing on a healthcare consumption choice based on disappearance of dissonance and consonance felt.

Table 2: Healthcare decision-making process undertaken and the corresponding mental states in participant RP5.

These action-oriented pre-decisional dissonance states impacted the mental states of Gen-Z owing to the neural circuitry of the ACC moderated consumer behaviour. These behaviours are described in the following quote from a participant RP5:

I analyse myself even like a specimen. You have your own understanding on what things arise, when does it arise and all that. So, I first know about myself and then I approach, I don't immediately apply anything. I need all information and I process all my feelings throughout the process before choosing anything to make sure, it aligns with my goal. The feelings span from uneasiness and feeling incomplete to final calmness and confidence. (RP5: 22-year-old male with chronic back issues. Consumer of treatment with self-experimentation via Google Searches)

Mental states and mental processing mechanisms described by participant RP5 are summarized in Table 2, above. These experiences were reported by all participants.

Cognitive Elements (Latent Needs) Arousing Gen-Z'ers Pre-Decisional Cognitive Dissonance

The answer to RQ1 regarding the latent needs of Gen-Z are contained in quotes from two participants. RP5 described the experience as follows, saying, “*I am always on the move, a football player, social worker. So, my goal was the one that made me not settle until I found the best for me. I have to do everything as usual...*” (RP5: 22-year-old male with chronic back issues. Consumer of treatment with self-experimentation via Google Searches). Another participant shared the following experience:

I cannot take no for an answer. I don't like to sit even for a second. So, I disregarded all and held on to hope and passion to do what I used to do – travel, dance, play etc and to do more in life. My goal and passion overpowered all. I wanted to do everything as before and more. (RP2: 25-year-old female with knee and foot injury; consumer of Ayurveda and Siddha Medicine).

During the process, the goals of the Gen-Zers became their needs, and their feelings of uneasiness, incompleteness, impreciseness and feeling incomplete guided each of their choices for healthcare consumption. Until the uneasiness/internal conflicts (pre-decisional cognitive dissonance) were

replaced with calmness (pre-decisional consonance), the Zers continued to search till they found the right healthcare choice, which was where need and choice aligned. This alignment depicts pre-decisional dissonance states having identified the latent needs and demonstrates deduction by Gen-Zers of pre-decisional cognitive dissonance.

CONCLUSION

This pilot study provides the first evidence demonstrating how latent needs arouse a sense cognitive dissonance, how the highly cognitive cohort of Gen-Zers perceived pre-decisional cognitive dissonance and how this dissonance guided their healthcare decision-making. Thus, latent needs perform the role of cognitive heuristic elements arousing pre-decisional cognitive dissonance (Festinger, 1957) as per Mills and Harmon-Jones (1999) action-based model of cognitive dissonance due to higher self-esteem, higher heuristic reliance and neurological advances in the generation Z cohort. Hence, the latent needs extracted from the pilot data, become the pre-decisional cognitive dissonance states. As, due to the understanding of what needs to be attend to i.e., generation Z individuals deploy the action-based model of cognitive dissonance (in a pre-decisional context) triggered by a cognitive element (driver) (Chacko and McElroy, 1983; Festinger, 1957; Flavell, 1999; Harmon-Jones, 1999; Harmon-Jones and Amodio, 2009). Further it is perceived well in Zers, who act to restore equilibrium which is in line with the conceptualization and critiqued literature. In terms of limitations, first, the findings are from the pilot study, thus the main study which is underway will further enhance the evidence from a larger scale perspective. Second, India has alternate and complementary medicine in its healthcare offering. However, the same in terms of healthcare offering cannot be said for all countries. Thus, research considering different healthcare choice offerings of nations and whether there is any effect on pre-decisional states of dissonance, ought to be studied further.

CONTRIBUTIONS

Theoretical

Theoretically, the five major contributions are: first, using qualitative techniques to establish latent need(s) as a cognitive dissonance arousing cognitive heuristic elements. Second, proposing a new typology of pre-decisional dissonance states for generation Z owing to identified latent needs (cognitive elements), which based on the proposition will reflect a consumers' mental process/mindset at the need recognition stage of consumer decision-making. Third, using cognitive dissonance in a pre-decisional study to address latent needs (cognitive elements as drivers) in consumers. Fourth, extending the new age consumer decision-making process of the digital age in light of identified pre-

decisional dissonance states. Fifth, these are findings from a new consumer group, Generation Z.

Managerial

From a business perspective, the two major contributions are: first, the studied cohort based on consumption and behaviour patterns is said to upend almost every sector (Jenkins, 2019). This study will equip businesses to operate in a Generation Z dominated environment via deeper understanding of the cognitive processes undertaken during consumer decision-making by the generation in context in the digital era. Second, arising out of the study, businesses will be in a position to adequately account for the 'Flynn Effect' - a phenomenon which describes that the IQ of successive generations increases every decade. Given cognitive dissonance and IQ being constant components within an individual, findings from this study will apprise businesses about the informed consumer's mental processes during the need recognition stage of the process of consumer decision-making. This would enable businesses to understand the how-to regarding tailoring generation-compatible marketing content and adopting generation-relevant marketing activities as customer engagement has grown exponentially in complexity with the influx of the new Gen Z (Rosada-Pinto and Loureiro, 2020).

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DIGITAL FINANCIAL INCLUSION AMONG SMALL BUSINESS UNITS DURING COVID PANDEMIC

R, Viknesh¹; J R, Sethulekshmi²; Ray, Sougata³

¹School of Business, Amrita Vishwa Vidyapeetham, Kollam, India

²Department of Commerce and Management, Amrita School of Arts and Sciences, Kochi, India

³International Management Institute, Bhubaneswar, Odisha, India

ABSTRACT

The paper studies about digital financial inclusion among the small business units in Kayamkulam town during the Covid pandemic and also investigates about the knowledge of business owners and customers towards the digital payment methods, their influencers for using it and about the proportion of transactions received by the business units in the digital form during the Covid pandemic and also investigates about the usage pattern and various kinds of problems and fraudulent activities encountered by the business units. The method used here is percentage analysis and the survey was taken from 150 business units, which contains units from both organized and unorganized business sector. It also investigates about the adaptability of the business units due to the sudden change from cash transactions to the digital transaction method. Transfer of Covid through currency made more preference for the digital payment methods, which enforced business units to implement digital payment methods, by which they have grown largely and played a vital role in business transactions.

Keywords: Digital Financial Inclusion, Covid, Pandemic, UPI Transactions, Digital Payments, SME's, Kayamkulam, Kerala

INTRODUCTION

The paper investigates digital financial inclusion among small business units in Kayamkulam town during the Covid pandemic, as well as business owners' and customers' knowledge of digital payment methods, their influencers for using it, and the proportion of transactions received by business units in digital form during the Covid pandemic. According to Etty Susilowati & Leonnard (2019), gender, age, income, and education are all factors that influence financial inclusion. The biggest barrier to accessing financial services is a shortage of financial resources. Furthermore, the primary factors influencing customer decisions to save in financial institutions are educational and retirement needs. Gender, age, income, and education are all factors that influence inclusive finance. Although age and education play a role in the obstacles to financial inclusion and variations in motivation to use financial services and loan sources are influenced by differences in gender, age, and income. Anzoategui et al (2014) stated

that financial inclusion is often influenced by household size, age, and remittances. According to Arun & Kamath (2015) ; Zins & Weill (2016), a number of metrics are used to assess financial inclusion. The supply of financial products, the adoption of products, the use of products, and the importance of the product are some of these measures. Availability of financial products assesses the accessibility of financial institutions, products, and services, especially banking, to the general public. The adoption of goods is a supply-side metric that tracks the ownership of bank accounts by individuals and businesses. The frequency at which customers use financial goods or services over time, such as saving or borrowing, is measured by the use of products. Finally, the product's importance assesses the financial institution's ability to satisfy market demands. The four indicators are then divided into indicators of financial product or service access and use. The availability and acceptance of financial products was used to assess public access to financial institutions. However, in today's digital era, technological advancements have led to the adoption of goods that are perceived to be the primary measure of access to financial institutions. Since the availability of financial products is considered a physical type of financial institutions, the digital form of financial institutions has been widely adopted. The other two indicators, namely product usage and product value, are considered indicators of financial institution product or service use.

Over everything, COVID-19 has sparked a massive consumption crisis that is still ongoing today. Although important, lockdowns restrict most people's mobility, and they are common in many places in some way or another. Consumption is mostly limited to necessities. Meanwhile, both the threat of contagion and COVID-19 have (further) restricted people's mobility, even locally—let alone travel to other towns/cities, states, and nations. Micro-entrepreneurs, which market products and services, have seen a decrease in customers. Most people are unable to practise their trades with any degree of certainty or consistency. Then you add on the supply side shock, it's been very complicated and expensive for them to even operate their businesses. Fish sellers, for example, argue that due to travel limits, there is no substantial harvesting of fish from the sea. And if they want to be brave and return to their pavement shops, small petty retailers don't have inventory to sell locally.

Moving on to SMEs, demand for their products has been severely impacted, with the exception of a few industries. Despite the fact that many governments and central banks have tried their hardest to help SMEs by subsidised loans, guided lending facilities, interest rate reductions, and other means, SMEs remain hesitant because they are struggling on many levels. Similarly, the amount of capital parked by banks with central banks is huge, showing the banks' inability to lend. Furthermore, apart from SMEs producing vital goods, demand for other SMEs' products is either low or non-existent. Because of this, as well as a shortage of manpower and supply chain delays, they are unable to increase capacity usage. Also now, in many nations, the flow of products through contexts is not smooth. As a result, many

SMEs are unable to borrow at all, owing to the fact that they would have to repay the loan at some stage. Overall, SMEs are unable and reluctant to begin manufacturing, let alone scale up production, in the face of demand and other shocks. Overall, COVID-19 has had a negative effect on capital markets, resulting in a decrease in lending confidence and, as a result, a decline in credit lines and the like. While all larger companies and (m) SMEs are affected by both of these factors, the effect on (m) SMEs is disproportionately extreme due to their higher rate of vulnerability and lower durability (because of their size and unique aspects).

Cash has always been a disease-spreader, and everyone today is hesitant to consider cash when there is an alternative. In the future, contactless payments would be favoured, at least where alternatives exist. Of course, the vulnerable and low-income people will prefer to transact in cash because they are already not a part of digitization (and their ecosystem does not embrace cash) and are often still unable to use digital finance due to bad encounters with it. In this sense, we must present one concept that has received a lot of attention as a viable alternative to conventional financial institutions: digital financial inclusion focused on digitization. Digitization therefore necessitates the creation of a complete environment that embraces digital money as well as improved digital connectivity around the board. In the case of digital finance, it also needs simple and open consumer security processes. Digitization therefore necessitates the creation of a complete environment that embraces digital money as well as improved digital connectivity around the board. In the case of digital finance, it also needs simple and open consumer security processes. People are left out of the digitization process for a variety of reasons, including: (1) In many contexts, there is a lack of mobile data and internet connectivity, as well as financial (process and digital) literacy and the required digital infrastructure; (2) Although people can have bank accounts, they must be used regularly and continuously; (3) There are many vested interest groups who oppose a shift to a cashless economy, which must be addressed; (4) Investment credit for electronic payment infrastructure must be available in emerging and developed markets, where small (MSME) retailers seem to dominate; (5) Consumer sentiment often serves as an obstacle. Also for those who have credit cards, the advantages of cashless purchases remain unclear. Cash, on the other hand, is widely regarded as a superior and faster mode of exchange. There is also a perception that having cash on hand makes it easier to bargain. All of these can be changed; and (6) finally, most people (including card users) believe that if they use cards, they will be paid more (instead of cash). It is therefore necessary to improve this view. Without a question, countries that want to accelerate their digital transition must address all of these issues quickly.

The critical need for an artificial intelligence (AI)-based, voice-driven FinTech technology that will assist users in navigating mobile banking networks, regardless of their level of language, multimedia, or process literacy. Two problems dominate the creation of such a system: a) the fact that parts of the

society are already removed from digital financial services due to a lack of understanding of the (financial) mechanisms and how they work; and b) the need for digital and process awareness to be imparted to these people on the go before they can successfully use the available solutions. The important thing to remember is that conventional classroom teaching would not be useful in this situation. If users need to get on the digital bandwagon right away, training them, particularly the lower rung of low-income people, should be a parallel phase at best. That is why a voice-led AI application is needed to guide the user through the transaction and other procedures. In this scenario, consumers will be led every step of the way by a "virtual voice" that will tell them what to do in the language of their choosing.

The mere use of a digital instrument would not imply long-term financial inclusion. Neither is the use of a checking account with a negative balance. We may come up with a slew of other scenarios. What we need are need-based, high-quality financial systems that can help low-income and excluded individuals have more enduring, bargaining, negotiation, and holding power, allowing them to resolve setbacks, life cycle incidents, emergencies, and so on, as we've seen in the COVID-19 crisis. COVID-19 has flipped the concept of (real) financial inclusion on its head. Various colours of MSMEs, small and marginal producers, informal sector members, seasonal workers, marginalised persons, and other examples can be found all over the world. As a result, a new framework/mandate for long-term financial inclusion is critical. A mechanism like this should aid in the development of a world-class financial sector that is genuinely robust, inclusive, secure, and accountable. This process would also enable us to solve the uncertainty that exists in identifying, operationalizing, and evaluating financial inclusion, an area that has been overlooked for far too long. What's needed now is a simple framework for calculating financial inclusion, so that central banks can monitor accountable progress toward 100 percent financial inclusion in real time.

LITERATURE REVIEW

Financial inclusion has been recognized as a critical pillar of development and a driving force of economic and financial stability by the G20 in recent years. Financial inclusion is a critical component of the global development agenda because it promotes the development of strong and long-term financial systems. It also revealed that both developed and developing countries are increasingly supportive of financial inclusion. Financial inclusion is an important tool for addressing persistent poverty and underdevelopment (GPFI Forum, 2011). For a variety of reasons, academics and policymakers have focused on financial inclusion. Ozili offers four compelling reasons. To begin with, it is a strategy for achieving the United Nations' (UN) sustainable development goals. Second, there's the issue of social inclusion. Finally, there is a link between poverty reduction and socioeconomic benefits. The term is

most commonly used to refer to two key aspects of financial inclusion: “access” to financial products and “usage” of those products by customers to obtain economic benefits. (Abdul Aziz, and Umma Naima, 2021). This paper also looks into whether financial inclusion is linked to financial efficiency and sustainability, which could lead to policy conflicts or synergies, and it lays out some research questions for the future. Financial stability and financial inclusion are mutually reinforcing, according to research, and thus a balance between these two goals can be achieved. That is, policymakers can achieve their goals of expanding the number of people who use financial services while maintaining systemic stability (Thai-Ha Le, et.al. 2019).

Digital Financial Inclusion

Under the guidance of the G20 High-Level Principles for Digital Financial Inclusion and international standard-setting bodies' (SSBs) principles supporting financial inclusion, the G20 recognizes the importance of taking concrete and significant actions to advance digital financial inclusion. The term "digital financial inclusion" refers to the use of digital financial services to help people become more financially included. It entails the use of digital technologies to reach financially excluded and underserved populations with a range of formal financial services tailored to their needs, delivered responsibly at a cost that is both affordable for customers and sustainable for providers. Payments, transfers, savings, credit, insurance, securities, financial planning, and account statements are all examples of financial products and services covered by the term "digital financial services." They are distributed through digital/electronic technology such as e-money (which can be started online or on a mobile phone), payment cards, and traditional bank accounts. In recent years, emerging digital financial services have piqued the interest of stakeholders (including policymakers and academics) as a possible route to financial inclusion. The adoption and use of digital services may have an impact on and shape daily financial activities, which could help to ensure a society's economic growth. This study also reveals a misalignment between implicit assumptions in the financial inclusion discourse and ideas about access and use of digital technologies, as well as providing a comprehensive framework for digital financial inclusion. (G20 High-Level Principles for Digital Financial Inclusion, 2016).

Importance of Digital Financial Inclusion in Covid time

The COVID-19 global health crisis, which has quickly turned into an economic crisis, is wreaking havoc on people's lives all over the world. The COVID-19 pandemic declared a state of emergency around the world at the start of 2020. To reduce the risk of the virus spreading, governments around the world implemented confinement measures ranging from social isolation to total lockdown, restricting people's movement and forcing the closure of many businesses. Despite the importance of these measures in containing the virus, the economic impact cannot be underestimated. Cash has always

been a disease-spreader, and everyone nowadays is hesitant to accept cash when there is an alternative. In the future, contactless payments will be preferred, at least where options exist. Of course, the poor and low-income people will continue to transact in cash because they are still not a part of digitization (because their ecosystem does not accept cash) and are sometimes even hesitant to use digital finance due to negative experiences with it. In this context, we must present one concept that has received a lot of attention as a viable alternative to traditional financial institutions: digital financial inclusion based on digitization. Digitization also necessitates the development of a complete ecosystem that accepts digital money as well as improved digital infrastructure across the board. In the case of digital finance, it also requires simple and accessible consumer protection mechanisms. With COVID-19 still being a work in progress, social physical distancing here to stay, and lockdowns/voluntary lockdowns continuing, central bank supervision is changing dramatically. Board meetings and board sub-committees will be able to meet and function virtually as needed. This article also summarizes, COVID-19, which has almost eliminated on-site bank supervision, should encourage central banks to rely more heavily on off-site and on-line supervision (Ramesh Srivatsava Arunachalam and Godfrey Lord Kwesi Crentsil, 2020).

The pandemic has also presented opportunities for advancing financial inclusion initiatives through the use of digital platforms. Since development partners and central banks have been at the forefront in formulating and implementing strategies to support financial inclusion, African countries with underdeveloped Digital Financial Services may be able to pool resources and introduce adaptive financial regulations. The financial sector has a lot of potential for leveraging the scale of mobile phone ownership and internet access to create technological innovations. Finally, providing liquidity support to mobile agents and SMEs to enable them to continue operating during the crisis is even more critical. SMEs and mobile agents would benefit from strategies such as lower microcredit costs, more flexible loan repayment terms, and waivers of transaction fees (IMMACULATE NAFULA MACHASIO, 2020).

Studies on the factors that influence the use of digital financial services in India

Rana et al., (2020), emphasized that through pioneering technologies such as mobile phone-based solutions, digital platforms, and electronic money models, digital financial services (DFS) have a significant potential to offer a number of reasonable, appropriate, and secure banking services to the underprivileged in developing countries. Balasubramanian & Kuppasamy (2020) The goal of this paper is to look at how female labour force participation (FLFP) affects women's access to and use of formal financial services. The impact of FLFP on the financial inclusion variables is explained using multivariate regression (OLS). Different groups of country-level control variables were also taken into account in the study. The study also uses instrumental variables regression to account for endogeneity issues. The study included access to a bank account, a debit card, and a credit card as part of its scope

of financial services. The study also looked at how women use digital platforms to access financial services.

The goal of this paper, according to a recent study by Dar and Ahmed (2020), is to learn more about the factors that influence financial inclusion and exclusion in India. The primary goal is to determine what factors influence India's unregulated financial activities. Policymakers will be able to use the findings of this study to identify the determinants and barriers to financial inclusion in India. To make financial inclusion more inclusive, policymakers should focus on the female population in particular, as well as education and income-enhancing measures in general. The study aims to understand the socio-economic determinants of financial inclusion, as measured by formal account ownership, formal saving, formal credit, debit card ownership, and debit card use. The study also looks into the factors that influence financial inclusion, savings (both formal and informal), and borrowing (formal and informal).

In their article, Ghosh and Chaudhury (2020) looked at how digital finance can help promote the growth of financial inclusion. The Indian government has taken a number of steps to promote the use of digital finance since 2014, one of which is demonetization. It was a major government initiative to move society toward a cashless economy. Despite widespread demonetization, the vast majority of Indians do not use digital finance. In this context, the purpose of this study is to assess the determinants and impact of demonetization on digital finance, as well as whether demonetization has widened or narrowed the pre-existing gender gap in digital finance in India. According to the findings, being a man, who is wealthier, more educated, and older, prefers to use digital technology to access financial services. In the post-demonetization period (2017), the impact of education and income level on the use of digital finance is more pronounced than in the pre-demonetization period (2014). The gender gap has been clearly demonstrated, but there is still a positive gap, implying that women are still lagging behind men.

Bhanot et al. (2012), explain in this paper is to look into the factors that play a role in determining the level of financial inclusion in geographically isolated areas. The study also aims to offer advice to banks on how to enter previously untapped markets. Inclusion is influenced by factors such as income, financial information obtained through various channels, awareness of self-help groups (SHGs), and education. Nearness to post office banks increases the likelihood of inclusion. Inclusion is hampered by factors such as the terrain of the area and the receipt of government benefits. Government benefit recipients in rural areas, on the other hand, show a higher level of inclusion. The research was limited to north-east India, limiting the findings' applicability. Banks and policymakers should collaborate closely to spread financial information because such efforts are seen to have a direct impact on inclusion, resulting in new business opportunities for banks.

According to Nandru et al. (2015), demographic factors have influenced the widespread use of banking services, resulting in the financial inclusion of people in the Pondicherry region. Higher income, better education, gender, and occupation level are all found to have a significant impact on the use of banking services. Financial inclusion is also determined by macro-level dimensions such as ease of accessing bank products, physical distance to a bank branch, and use of banking services. A study by Nandru et al., (2020), looked into the demand side determinants of digital financial services accessibility, which are measured by three variables: debit card, credit card, and mobile money account ownership, all of which are based on the 2017 World Bank global Index database. Individual characteristics such as gender, age, income, education, and employment status play a significant role in determining digital financial inclusion accessibility in India. Education, income, and employment status are all significant factors in the use of digital financial services. Finally, personal characteristics like age, income, education, and employment status have a big impact on digital payments and receipts. It is concluded that increasing access to and use of digital financial services allows society to be free of cash-related robbery and corruption, reducing the risk of carrying cash, eliminating block money, and ensuring accountability and transparency for each financial transaction.

In emerging economies, infrastructure-related barriers are a major source of concern. To make matters worse, research shows that the lack of reliable fixed and mobile phone communication, as well as a convenient transportation network to bank branches and ATMs, is a barrier to financial inclusion. Financial inclusion is impossible to achieve without secure and reliable payment and settlement systems. As a result, it can be concluded that a lack of convenient transportation is a significant barrier to financial access (Miethe & Pothier, 2016). Fungacova and Weill (2015) investigated the areas that provide essential support for financial awareness and financial literacy in China and found that the wealthier, more educated, and older people were more financially included. While there is a lot of knowledge about financial inclusion around the world, Allen et al. (2016) argue that if emerging countries are to benefit from the SME sector, they must be able to understand and apply financial inclusion principles. According to Kotsov et al. (2015), aspirations and financial literacy are important determinants of financial inclusion that influence decision-making in South Africa. Surprisingly, the likelihood of having a formal financial institution account is higher for those who are wealthier, more educated, older, urban, employed, and married or separated. For the same demographic, the likelihood of having saved in a formal institution is also higher. Early modern development theories argued that in order for countries to develop and grow, more money needed to be in the hands of the wealthy. This income group would fuel growth and development by channeling more resources toward a saving culture, with to its insatiable appetite for investing. As a result, income and financial inequality were required to promote development (Barr, 2004). It was assumed that after development, financial

inclusion would be endorsed. Financial exclusion, it was argued, was caused by the poor's inability to save rather than development (Karpowicz, 2014).

This setup, on the other hand, excludes SMEs that operate at the grassroots level because they lack the financial resources to save and join this inclusive group. According to Yoshino and Morgan (2016), deeper financial systems reduce poverty, increase income, and promote economic growth by increasing financial efficiency and reducing the corruption associated with cash transfers. The ability of SMEs to be innovative, create jobs, and expand their branches is enhanced when banks provide credit to them. Households' per capita GDP rises as a result of increased financial access. With increased access to financial products and services, SMEs' income levels improve as well (Yoshino & Morgan, 2016). Credit access, according to the minimalist theory, is the key to SMEs' success. These theorists contend that SMEs can only grow if they have access to short-term credit (Ledgerwood et al., 2013). Credit is only granted to those who have tangible collateral, according to the theory. Due to the requirement for collateral, many SMEs are unable to obtain credit from financial institutions. Because of this barrier, the majority of SMEs use a group-based model to gather financial resources that they can then use to fund their operations. When SMEs collaborate, they are better able to mobilize the resources they need to meet their credit obligations (Ghandi, 2014).

The main determinants of financial inclusion, according to Zins and Weill (2016), are information availability, income levels, infrastructure, and financial sector regulations. Capital adequacy and supervisory rules, which make it less appealing to receive deposits and give small loans to many SMEs, are regulatory factors that obstruct financial access for SMEs. Banks may be unable to expand their services to remote areas due to stringent requirements for ATM installation and bank branch opening (Demirgüç-Kunt et al., 2015). As a result, bank procedures and requirements are another barrier to financial inclusion (Zins and Weill, 2016). It was also mentioned that the banking sector's characteristics influence the level of financial inclusion. Financial inclusion is hampered by higher account opening costs. Longer distances to nearest banking facilities, as well as many disclosure requirements, limit formal inclusion (Demirgüç-Kunt et al., 2013).

Financial inclusion has also been hampered by banks conducting customer due diligence. Non-bank institutions, such as mobile banking, Moneygram, and Western Union (Durner & Shetret, 2015 and Zins & Weill, 2016), are used by SMEs because they do not require an account to transact. Access to financial services and products has been hampered by the demand for collateral security. Because most banks consider SMEs to be risky, they place a premium on the requirements for opening bank accounts (Mago, 2014). To counteract this, SMEs may have a low level of trust in the financial sector and be hesitant to save or borrow money from banks (Kokate & Nalawade, 2015). Due to a lack of trust in the

banking sector, interactions between banks and SMEs may be reduced, resulting in a gap in information flow (Gopalan & Rajan, 2015).

SURVEY DATA AND RESULTS

We have collected 150 responses from the business owners, running their business at Kayamkulam, Alappuzha Dist, Kerala, India. We mainly focused on the shops at Kayamkulam Main Road, Link Road and Market. The responses contain the business owners from organised and unorganised business industries. Organised business contains a structural framework of duties and responsibilities required of personnel in performing various functions with a view to achieve business goals through organization. Management tries to combine various business activities to accomplish predetermined goals, whereas an unorganized business area contains street vendors, toy sellers, a vegetable seller, flower delivery shops, etc. Basically, most of these activities are considered as an unorganized business area. Because no one is there to regulate. The interview was a structured interview, whereas the business owners were questioned directly. It was conducted between the period of 15th March 2021 and 21st April 2021. 59 responses were collected from the organised business industry, 91 responses were collected from the unorganised business industry and used percentage analysis method for analyzing the survey data and some of the statistics are shown below.

Kayamkulam is a municipality city in the Alappuzha district of Kerala. The city of Kayamkulam is divided into 41 wards, with elections held every five years. According to the Census India 2011 survey, the Kayamkulam Municipality has a population of 68,634, with 32,784 males and 35,850 females. The number of children aged 0 to 6 years old in Kayamkulam is 6914, accounting for 10.07 percent of the total population (M). The Female Sex Ratio in Kayamkulam Municipality is 1094, which is higher than the state average of 1084. In addition, the Child Sex Ratio in Kayamkulam is about 945, which is lower than the Kerala state average of 964. Kayamkulam's literacy rate is 94.81 percent higher than the state average of 94.00 percent. Male literacy is around 96.72 percent in Kayamkulam, while female literacy is around 93.10 percent. Kayamkulam Municipality is responsible for 16,392 homes, of which it provides essential services such as water and sewerage. It also has the authority to build roads within the Municipality's boundaries and levy taxes on lands that fall under its control. There were 22,088 people working or doing business out of the overall population. Males made up 17,125 of the total, while females made up 4,963. In the census, a worker is identified as someone who works in a company, does a job, provides a service, or is a cultivator or engages in labour activity. 78.31% of the working population (22088 people) was employed in Main Employment, while 21.69 percent were employed in Marginal Work.

	Total Surveyed	Using Payment System Before Pandemic	Using Payment after Start of Pandemic	Penetration Before Pandemic (%)	Penetration after start of Pandemic (%)
Organised Sector	59	45	55	76.27	93.22
Unorganised Sector	91	35	58	38.46	63.74
TOTAL	150	80	113	53.33	75.33

Source: Survey Data

Table 1. *Penetration of Digital Payment System*

Interpretation

From the table 1, it is clear that out of the total respondents, (53.33%) of the respondents are already using Digital payment system even before the pandemic and among those 45 respondents (76.27%) belongs to organized sector and the rest 35 respondents (38.46%) belongs to unorganized sector. The rest 113 respondents have started using the digital payment system only after the start of pandemic, and among this around 93.22% of respondents belongs to organized sector and 63.74% belongs to unorganized sector.

	Before Pandemic	After Pandemic		
	Existing Users	Existing Users	New Users	All Users
Organised Sector	15.9%	36.7%	17%	26.8%
Unorganised Sector	12.9%	30.9%	21.9%	26.4%
TOTAL	28.8%	67.5%	38.9%	53.2%

Source: Survey Data

Table 2. *Average Proportion of Transaction through Digital Payment System*

Interpretation

Table 2 represents the average proportion of transactions through digital payment system, before the pandemic the average transaction done through digital payment system by the existing users are 28.8% and in that 15.9% belongs to organized sector and 12.9% belongs to unorganized sector. The transaction proportion after the pandemic situation among the existing users have increased to 67.5% and among that 36.7% belongs to organized sector and 30.9% belongs to unorganized sector. The proportion of transaction done by the new users after the pandemic is 38.9% and among that 17% belongs to organized sector and 21.3% belongs to unorganized sector.

	Organised Sector	Unorganised Sector	Total
Business Related Transaction	55	58	113
Non-business-Related Transaction	34	22	56

Source: Survey Data

Table 3. *Usage Pattern*

Interpretation

Table 3 represents the usage pattern of respondents; multiple usage pattern is observed from the survey. A total of 113 respondents are using digital payment system for business related transaction and among those 55 respondents belongs to organized sector and the rest belongs to unorganized sector. 56 number of respondents are using digital payment system for non-business-related transaction and among that 34 number of respondents belongs to organized sector and 22 respondents belongs to unorganized sector.

	Organised Sector	Unorganised Sector	Total
Lack of Knowledge	2	21	23
Lack of device (financial constraint)	1	8	9
Others	1	6	7

Source: Survey Data

Table 4. *Reasons for Non-Usage*

Interpretation

The above table 4 represents the reasons for the non-usage of digital payment system. The main reason for the non-usage was lack of knowledge which comes to 23 respondents and among those 2 respondents belongs to organized sector and 21 respondents belongs to unorganized sector. The next reason was the lack of device due to financial constraints was reported by 9 respondents and among those 8 respondents belong to unorganized sector and 1 respondent belongs to organized sector.

	Organised Sector	Unorganised Sector	Total
Peers / Competitors in Business	46	29	75
Government Agency	2	0	2
Financial Institution / Payment Companies	7	29	36
Media / Television / Newspaper	0	0	0

Source: Survey Data

Table 5. *Influencer for Digital Payment Usage*

Interpretation

Table 5 represents the influencers for the usage of digital payment system, 75 number of respondents says that peers and competitors in business are the main influencers and among these 46 respondents are from organized sector and 29 respondents are from unorganized sector. Other major influencer is the financial institution/ payment companies which constitutes to 36 respondents and among these 29 respondents are from unorganized sector and 7 belongs to organized sector. 2 respondents from organized sector feels that government agency is also an influencer for using the digital payment system. And none of the respondents feels that media/ television/ newspaper influences them to use digital payment system.

	Organised Sector	Unorganised Sector	Total
Encountered Problems	6	2	8
Understanding of Risk & Safety Measures	39	32	71

Source: Survey Data

Table 6. *Problems, Risk and Safety Measures*

Interpretation

From the above table it is clear that, 8 respondents encountered problems and among this 6 belongs to organized sector and 2 respondents belongs to unorganized sector. And 39 respondents from the organized sector are aware of the risk and safety measures in digital payment system whereas only 32 respondents are aware of the risk and safety measures.

FINDINGS AND CONCLUSION

Majority of the respondents have started using digital payment system after the pandemic. This result was supported by the study conducted by (Immaculate Nafula Machario, 2020) in which the researcher focuses on the opportunities which could be seized to drive financial inclusion initiatives using digital payment system during pandemic in African countries. The transaction proportion after the pandemic situation among existing users have increased tremendously. The annual reports of Reserve Bank of India says that the pandemic has fueled the proliferation of digital modes of payments. Majority of the respondents are using digital payment system for business related transactions. Overall, the total digital transaction volume in 2020-1 stood at 4371 crores, as against 3412 crore in the year 2019-20 (Annual reports of RBI). Lack of knowledge is the main reason for non-usage among respondents, which is supported by the recommendations made by (Rym Ayadi & Mais Shaban, 2020) in their study it was pointed out that to provide proper digital awareness and their by enhance financial literacy in order to encourage digital payment system. The competitors in business/ peers are the main influencer for the usage of digital payment system followed by financial institutions payment institutions.

From the study, we can see a huge impact in digital financial inclusion in the small business units. Most of the unorganized sector business has installed the digital payment system and as compared with the pre-pandemic situation, the number got doubled. The proportion of payment receipts also increased, which means a greater number of people are using digital payment during the pandemic time. The competitors and financial institutions played a vital role in influencing the business to implement the digital payment. The problems and fraudulent activities encountered by the business owners are also less, which is a positive factor and it helps to attract a greater number of business in towards the digital

payment method. It helps the business and customers for easy transaction and helps to decrease the spread of the virus through currency notes.

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CONTEXTUAL EFFECT OF ONLINE SECONDHAND SHOPPERS' LOYALTY: A VENDOR COMPARISON

Vila-Brunet, Neus¹; Llach, Josep²

¹Department of Economics and Social Sciences, Universitat Internacional de Catalunya, Barcelona, Spain

²Department of Organization, Business Management and Product Design, Escola Politècnica Girona, Spain

ABSTRACT

The growth of online secondhand purchases over the last two decades has been driven by the increase in the number of platforms that have captured this market niche and the change in preferences towards sustainability, vintage and affordability. With more online secondhand buyers, the question is how does the type of vendor (professional or amateur) on these platforms affect their satisfaction and loyalty? To address this question, a structural equation loyalty model based on the Expectancy-Value Theory (EVT) is proposed. The model identifies the relationships between the OSS-Qual quality scale constructs and the dimensions of satisfaction and loyalty, and it is tested for the two types of vendors. Five hundred and seven online secondhand shoppers responded to the survey launched by a professional company. Half of them had bought from amateur vendors and the rest from professional vendors. The results identify that website satisfaction contributes three times more to shoppers' loyal behaviour than do vendor satisfaction and product satisfaction. Online secondhand shoppers' satisfaction and loyal behaviour are higher when the vendor is a professional as opposed to an amateur. This paper contributes to the body of literature by validating Olsen's Satisfaction-Loyalty model for the online secondhand market, and by identifying that the type of vendor explains the different levels of satisfaction and loyalty achieved by shoppers. Strategies aimed at increasing website quality and professionalism are the most effective ones to ensure shoppers' satisfaction and loyal behaviour.

Keywords: secondhand, online, satisfaction, loyalty, vendor, B2P, P2P

INTRODUCTION

The evidence indicates that secondhand product sales have gained market share in the online marketplace worldwide since an increased number of platforms have embraced this market niche (Weinstein, 2014). Achieving loyal behaviour from online secondhand consumers is expected to require a different strategy given the idiosyncrasies of the online secondhand market, namely that it sells a used product and is formed by two types of vendors (amateur, professional). There is a larger

proportion of amateur sellers in online secondhand markets than in online markets of new products, carrying out what is known as peer-to-peer (P2P) transactions. This trait affects shoppers' quality perceptions (Kim and Jin, 2020). Vila-Brunet and Llach (2020) recently investigated what makes online secondhand shoppers perceive the shopping experience as a quality one by developing and validating the OSS-Qual quality scale for online secondhand shoppers. Their work can be the point of departure to investigate how loyal behaviour can be achieved in online secondhand markets. By investigating the validity of the EVT via the Satisfaction-Loyalty Model (Olsen, 2002) and the contribution of the vendor type to consumer satisfaction and loyal behaviour we can identify more effective strategies that enhance profitability for online secondhand sellers and platform owners. At the theoretical level, the present research can expand the Satisfaction-Loyalty Model (Olsen, 2002) by identifying the relative contribution of each vendor type towards both consumer satisfaction and loyal behaviour.

Based on the gaps in the current literature concerning online secondhand markets, this paper aims to respond to four questions: (i) How do the OSS-Qual quality scale dimensions affect online secondhand shoppers' satisfaction? (ii) Which satisfaction factors contribute most to online secondhand shoppers' loyal behaviour? (iii) Which vendor type (professional vs. amateur) contributes most to secondhand shoppers' satisfaction? and (iv) Which vendor type (professional vs. amateur) contributes most to secondhand shoppers' loyal behaviour?

BACKGROUND AND THEORETICAL FRAMEWORK

Research model

Several studies have tested the relationship between quality, satisfaction, and loyalty (Szymanski and Henard, 2001; Olsen, 2002; Jones and Taylor, 2007; Kundu and Datta, 2015; Marimon *et al.*, 2019; Vrontis *et al.*, 2020). All of them have reported that the relationship between the quality dimension and satisfaction is stronger than the relationship between satisfaction and loyalty. The correlation between quality performance and loyalty is thought to be lower than the correlation between satisfaction and loyalty because satisfaction acts as a mediator between quality and loyalty (Dabholkar *et al.*, 2000). Hence, even though we could have expected a positive correlation between quality performance and loyalty (Jones and Taylor, 2007), we built our model in such a way that satisfaction (evaluation of feelings) acted as a mediator between quality (evaluation of performance) and loyalty (behavior), meaning that quality only had an indirect influence on loyalty through satisfaction (Bloemer and Ruyter, 1998). This assumption is in accordance with EVT (Atkinson, 1957) and the loyal phase framework (Oliver, 1999).

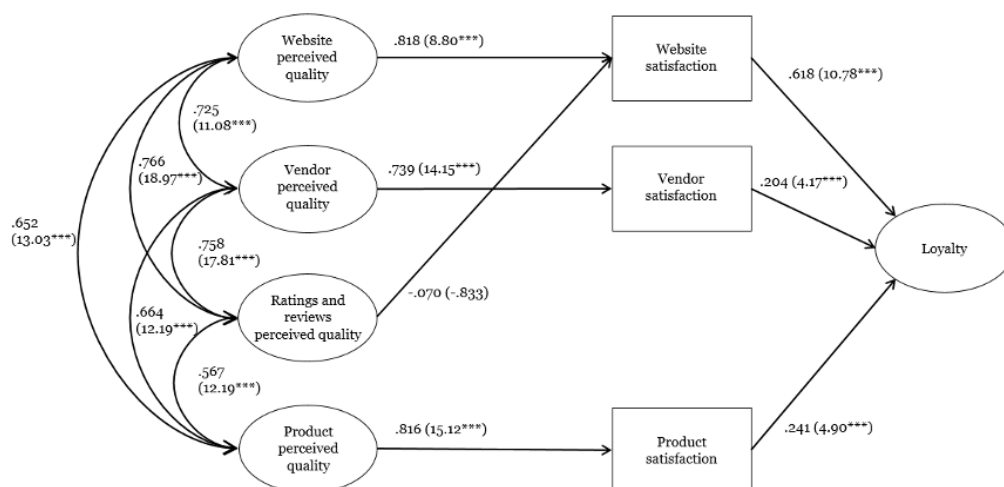
MATERIALS AND METHODS

Five hundred and seven reader responses were collected from Spain, Portugal, Italy, and France in a proportional manner. Before proceeding with the statistical analysis of the model, a Harman's single factor test (Malhotra *et al.*, 2006) was performed to prevent common method bias. The variance extracted from the sample was under the recommended value of 50%, meaning that there was no danger of common method bias.

Based on the literature review five dimensions and three variables were explored. Following the OSS-Qual scale, the four dimensions for perceived quality were (i) *website perceived quality*: the degree of user-friendliness offered by the website and the added value that the services offered by the platform bring to the user; (ii) *vendor perceived quality*: the array and quality of the services offered by the vendor; (iii) *ratings and reviews perceived quality*: the seller ratings and reviews from other customers motivate me to buy from this seller; and (iv) *product perceived quality*: the characteristics of the product that allow it to be used properly.

RESULTS

The results presented in Figure 1 and Table 1 below indicate that there is a significant difference in the quality perceived by the customer depending on the nature of the vendor.



Note: Path coefficient; robust statistics significant at the .05 level in parentheses

Figure 1. Standardized solution of the causal model

When the vendor is a business, the perceived quality is greater and produces a greater impact on loyalty. However, the results would also suggest that the nature of the vendor does not have any significant influence on the quality perceived by the customer in terms of the quality of the platform, where the purchase is conducted, and the product. Table 1 below presents the contextual differences according to the nature of the vendor.

	P2P (n=252)		B2P (n=255)		Multi-group analysis	
	B	stat.	β	stat.	$\Delta\chi^2$ (Δ d.f.)	stat.
Website PQ \rightarrow Website SAT	.910	7.03***	.736	5.88***	.08 (1)	.769
Vendor PQ \rightarrow Vendor SAT	.698	9.82***	.768	10.67***	3.82 (1)	.050***
Ratings PQ \rightarrow Website SAT	-.187	-1.74	.032	.274	1.15 (1)	.283
Product PQ \rightarrow Product SAT	.818	9.54***	.818	11.87***	2.41 (1)	.120
Website SAT \rightarrow Loyalty	.717	7.47***	.532	8.17***	.40 (1)	.523
Vendor SAT \rightarrow Loyalty	.062	1.08	.290	3.91***	3.61 (1)	.057**
Product SAT \rightarrow Loyalty	.220	3.32***	.270	4.14***	.24 (1)	.622
Fit indices ¹	χ^2 /d.f.=1.67 BB-NNFI= .910 CFI= .924 RMSEA= .052		χ^2 /d.f.= 1.48 BB-NNFI= .943 CFI= .951 RMSEA= .043			

Table 1. Standardized values and statistics according to the nature of the vendor (peer or business)

CONCLUSIONS

The main aim of this research was to analyse the influence of the type of vendor on the quality-satisfaction-loyalty chain in the context of online secondhand markets. The model presented departs from the Expectancy-Value Theory (Atkinson, 1957), builds on Olsen's (2002) Satisfaction-Loyalty Model, and uses the framework of the cognition-affect-behaviour hierarchy in the conceptualization of the quality, satisfaction, and loyalty dimensions.

The theoretical implication of the multi-group analysis by vendor type identifies that the loyalty model for both vendor types has the same structure of six significant relationships. It also identifies that the main difference by vendor type stems from the contribution made by the level of satisfaction on the levels of online secondhand shoppers' loyalty, indicating that more loyal behavior is generated by professional vendors.

Limitations of the present study lie in the regional sample of the data. Complementarily, the present loyalty model for online secondhand shoppers is based on the Expectancy – Value Theory (Atkinson, 1957) and does not include the hedonics dimension as a possible mediator to explain the relative contribution of satisfaction antecedents to online secondhand shopper's satisfaction levels.

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RECYCLING SCOPE ECONOMIES PERFORM THE CIRCULAR ECONOMY IN THE PRATO TEXTILE DISTRICT

Zagnoli, Patrizia; Radicchi, Elena

University of Florence, Florence, Italy

ABSTRACT

Purpose: The aim of this research is to analyse the manufacturing processes implemented by companies operating in the carded supply chain of the textile district of Prato. The research demonstrates that what is nowadays promoted as a Circular Economy was historically an integral part of the local industrial process of reuse and recycle of textile waste and highlights the existence of peculiar forms of “embedded economies” that deserve to be explored.

Methodology: The paper adopts a case-study methodology with semi-structured interviews addressed to institutional stakeholders, alongside primary observation analysis from site visits to several small-to-medium size companies operating in the carded supply chain of the Prato district. *Findings:* The industrial district of Prato is emblematic of how a textile manufacturing process, traditionally located in a circumscribed geographic area, can encompass multiple district economies. Prato’s carded production capitalises on the area’s centuries-old textile tradition and know-how by re-injecting the manufacturing of a great variety of new fashion fabrics from the reuse and recycling of its own wasted textile materials, such as *pre-consumption by-products* and *end of life garments and rags*. The research tested and revealed the economic circularity of the district, bringing out the relevance of the specific *case study* on historic local small firm industrial development. *Implications:* The paper describes and interprets the sustainable industrial organization model diffused within the textile district of Prato. This case represents a benchmark for textile end-of-waste management at international level. *Originality/value:* Although a few recent reports have investigated the application of a circular economy to the industrial district, this research is among the first studies to highlight a sustainable, unexplored, and unexpected emerging variety of “scope economies” - different from the ones observed in the M-form companies - which are triggered through the reuse, remanufacturing and recovery processes typical of the carded supply chain.

Keywords: Scope economies; Circular economy; Industrial districts; Textile industry; Recycling

INTRODUCTION

In 2018, the textiles sector in the EU consisted of 171,000 companies, employing 1.7 million people and with a turnover of € 178 billion (Euratex, 2019). The textile sector, including the fashion industry, has significant environmental footprint across its value chain. Natural fibers are produced using vast areas of agricultural land and large amounts of water, energy, and chemicals, while the manufacture of synthetic fibers is based on fossil fuels. The use of chemicals and additives in textile production exerts significant impacts on local and regional water bodies. Their global distribution work emits greenhouse gases and generates packaging waste. Washing and drying of textiles result in significant water and energy consumption as well as the release of chemicals and micro-plastics into rivers and the marine environment. The sector is a major contributor to climate change through its waste management. Due to the enormous negative environmental, economic, and social impact of the overload of textiles production and consumption, the linear model 'take-make-dispose' seems not to be longer sustainable (World Economic Forum, 2019). In this framework the research focuses on the companies of the Prato district operating in the regenerated carded wool supply chain which have historically designed their manufacturing processes improving textile materials' waste management and enhancing the market for secondary raw materials. The aim of the study is to enlighten if and how the textile district firms' manufacturing activities give shape to the circular economy paradigm relying on a variety of economies along the process.

REVIEW OF THE LITERATURE

References on the circular economy approach

The new economic trend is based on circularity that is a process able on one side to limit the exploitation of raw materials, water, energy and time in the input phase and on the other side to minimise waste and disposal. Several scholars and practitioners have developed and proposed different definitions of Circular Economy (Andrews, 2015; Centobelli *et al.*, 2020; Larsson, 2018). More recently, the Ellen MacArthur Foundation (2013) formulated a sophisticated model of Circular Economy, combining previous research contributions. The pattern is based upon three fundamentals. *Firstly*, the objective is to eliminate wastes, thus meaning to design products by optimizing both material, non-toxic composition, and reusability through disassembly. *Secondly*, a distinction between consumable and durable goods must be done. *Thirdly*, the only sources of energy necessary to conduct economic activities should be renewable, thus letting the system become more resilient and less dependent on oil stocks.

Developing the framework for our analysis we use the definition provided by Korhonen *et al.* (2018), which entails the logic of sustainability in environmental, economic, and social terms. “The aim of Circular economy is to limit the throughput flow to a level that nature tolerates and utilises ecosystem cycles in economic cycles by respecting their natural reproduction rates” (Korhonen *et al.*, p. 39). The basic assumption of this approach is that the inner circles (recycling/manufacturing/re-use) demand less resources and energy and are economic as well. They are even able to create ‘win-win’ situations from an environmental, economic, and social perspective. Indeed, adopting this logic it is possible to reduce raw virgin material, since the resources in production-consumption systems are used many times. Moreover, waste management costs can be cut. Finally, in social terms, new employment opportunities are granted, and it is possible to increase a sense of community, cooperation, and participation that nurture sustainability.

The main assumptions of this approach can be easily applied to the model of the industrial district whose traits and elements seem to have a strong connection with the fundamentals of circular economy.

The industrial district's economies

The interpenetration between the sector and the historically rooted sector specialisation with the geographical concentration of production has been originally formulated by Alfred Marshall (1879) and resurrected by Giacomo Becattini (1979). In a period where managerial economics studies have been concentrated on Large and M form companies, Italian scholars have investigated the Italian local development made by small and medium size companies (Zagnoli 1991; 1993; 1996; 2001).

According to Becattini (1998; 2000), especially from the empirical research on Prato, the industrial district is a distinct form of production in which the focus should now shift to the congruence, in *time* and *space*, among the elementary processes into which an evolving district can be composed.

Undoubtedly the characteristics and changes of the productive structure of the local small firms' system is permeated with the socio-psychological features of its inhabitants and vice versa, in a process of *constant interrelations between the attitude of individuals and the social context*. In the large company, capital is a constituency factor; in the district production and redistribution are relatively independent from huge capital investment and are mainly based on a context of consolidated social network exchange.

This peculiar connotation makes the district's inhabitants deeply alphabetized to the local specialized sector. The literature emphasises the synergy between the active presence of *both a community of people and a population of firms* locally based, developing the industrial district typical economies that allow flexibility and rapid problem solving. The geographical proximity of firms belonging to the same industry leads to *economies of agglomeration*: the transmission of knowledge among companies and

workers is fostered. The co-presence of specialized firms and competent workforce stimulates *cooperation* and *competition processes* enforcing *competitiveness* (Zagnoli, 1993). The flow of information in the district increases the possibility of using *external economies*, which derive from outside the firms' organization, but within the district. The district benefits from *codified knowledge* and *contextual knowledge, learning by doing* and *learning by using* building a special 'industrial atmosphere' (Becattini, 1979; Belussi, 2015; Sforzi, 2015). Manufacturers can solve process' problems and product issues due to their cognitive proximity and continuity, constantly adapting to satisfy a highly variable and volatile market demand. The fashion content stimulates the exchange of experiences and ideas, thus highlighting *economies of creativity*. The Prato district is a laboratory where experiences, *know-how*, 'mysteries' and secrets typical of the sector are combined to achieve 'testing' and imaginative results. At the same time technical skills are merged with the imperative of lower costs persistently imposed by the rewarding of final clients. The endogenous development of the district characterized by regenerated material that is less expensive and even less subject to price fluctuation - if compared to virgin wool - once playing his role just as an element of cost, nowadays underlies its important sustainability dimension.

METHODOLOGY

Basic Research Questions

There are some major research questions that drive our study.

- *Is the local productive system - based on small and family businesses within the district - an industrial organization able to perform a sustainable approach in environmental, social, and economic terms?*
- *Could the 're-use concept' secularly embedded in the Prato textile district become a basic pillar for the contemporary circular economy paradigm?*
- *On which economies is circularity based? Which economies does it generate?*
- *How is the carded system rooted locally capable to overcome just the 'learning by doing' and 'learning by using' towards a competitive sustainable production process able to strengthen the companies' organization?*

Research design

From its origin the Prato district has been based on circular processes using wasted materials produced along the carded supply chain and putting them on value as 'by-products'. Our research would try to test if local industrial processes over time have performed a sustainable paradigm that shapes a circular economy approach.

Starting from the evolution of the Prato district we developed an *exploratory qualitative method* oriented to the *learning by observing*.

During the period from October 2019 and February 2020 the research team focused on the following activities: 1) Desk-based analysis of the existing literature about circular economy and industrial districts; 2) Conduction of semi-structured interviews with entrepreneurs of the carded supply chain in Prato and other stakeholders from the textile sector (A.S.T.R.I., CCIAA of Prato, Unione degli Industriali di Prato); 3) Field visits to local firms operating in the carded supply chain.

The research is based on a mixed primary and secondary data analysis driven by the theoretical framework of sustainable economy applied to the fundamentals of the industrial district. The qualitative methodology is aimed at investigating how the textile district of Prato finally conscious of its circularity is facing the contemporary high competition that among other challenges tends to induce sustainability processes in terms of textile sector's carbon footprint, the use of certified textile raw materials, the energy and costs saving, the performing of European regulations about end-of-waste and by products.

THE TEXTILE DISTRICT OF PRATO

Prato began to specialize in textiles in the 12th century when garment manufacturing was regulated by the Wool Merchants' Guild. Elements such as water, pastures and the natural water treatment have been crucial factors for the development of the local textile production. Until the 17th Century, the wool manufacturing increases, even surpassing the same production in the very close Florence. Nevertheless, until 1738 the Florentine's laws banned the production of 'luxury fabrics' out of the city. Indeed, from then this limitation has stigmatized the Prato *specialization* in the manufacture of *cheap fabrics* for *various* applications, based on recycled supplies.

In 1841, *the first* 'crusher to chop and wash wool rags, used in local recycled paper production has been converted into a machine for recycled wool production'. All over Europe, the Prato industries were well known for: - being able to manufacture felt rag ('panno feltro') *shortening the production process*; - reusing and recycling used rags to produce carded wool obtained through heat, humidity and percussion, *without costly wiring and weaving processes*.

Over the 18th Century, Prato confirms its specialization both in felt and on carded wool 'thick and dark, hard to be stained', manufactured for blankets, shawls, felt rags and military procurements. In 1861, with the unification of Italy, Prato is the third textile Italian district in the ranking (6.000 employees) - after Biella and Schio. In 1887, the Italian protectionist import duty on worsted wool induced the rise of carded production in Prato, where the industrial landscape saw the establishment of 'real factories'. At the beginning of the 19th Century a variety of small firms specialized in the production of carded wool for the domestic market coexists with the development of large manufacturing factories specialized in very standardized export product.

In the '30s begins the *injection of artificial fiber and fashion variables* in the recycled wool industrial district production. The fashion style is booming, many large companies damaged by the war are decomposing, and new small activities emerge with high division of manufacturing phases in the local context. At the beginning of the 1960s, the *industrial district atmosphere and awareness* emerge in their economic value. A wide entrepreneurial attitude, the substantial lack of entry barriers and the diffusion in the production filière of a high degree of flexibility create a precious creative and economic virtuous cycle.

In the '70s, with the emerging of fashion as a mass phenomenon, the district undergoes a fundamental transformation, *from a product-oriented, wool-processing segment to a market-oriented, fashion/textile district*. The re-orientation of its competitive identity in terms of "satisfied needs" cleared the way for a considerable increase overtime in the variety of products and finishing technologies. The international leaders in prêt-à-porter, the garment-makers for industrial brands, and the large industrial retailers would turn to Prato into a main actor what in providing: constantly renewed collections of great variety of fabric -*wool lost its centrality*-, high interaction among fashion designers and local creativity converging into the ability to answer increasingly complex product requests. Fashion trends in the mid-1980s, saw Prato decreasing its role on wool products: 28% of the workers lose their jobs and 37% of the firms go out of business.

During the 1990s the district tries to overcome globalization and consumer change of habits by emphasizing the strategy of *diversification towards new types of products* addressed to different market segments (quilted patterned combed yarns for knitwear, knitted, coated and flock fabrics, both natural and synthetic, non-wool fibers for industrial infrastructures and consumer' use) (Zagnoli, 1993). Aggressive price competition leads to a strong selection process and pushes some firms towards 'ennoblement' activities and finishing processes with companies of above-average dimension. The result is a change of the division of labour among district and external enterprises: firms in the district start buying unfinished goods from foreigner firms located in low labour cost areas, putting in value their own *internal know how* in the process of 'converting' improving the imported fabric's quality - offering current fashion colours, prints and special treatments -, and then selling it like their own products (Toccafondi, 2010).

The contemporary opening of international markets saw Chinese migrants as suppliers: in the decade between the mid-1980s and the mid-1990s, migrants were employed in Chinese workshops that contracted for Prato final suppliers' products and even took the direction of garment production that have been present in the area but with a minor local history compared to the textile. The new Chinese companies based in Prato profit from both local tangible infrastructures (industrial buildings, water depuration plants, energy, roads, logistics, maintenance, waste services, etc.) and from intangible assets like the area's specialization in textiles, its fashion creativity atmosphere, and Prato's brand internationally

recognized. At the same time, both Chinese by-products and garments, due to their very low percentage of natural sources, are not recyclable and must be incinerated without pursuing any reuse and recycling awareness, which would otherwise be typical of the district.

In 2001, the textile industry in the district engages 40.592 workers in a context where garments and knitwear manufacturing run by Chinese individuals are emerging with 9.444 employees: as a whole, the districts account for more than 50.036 employees. In 2011, textile labour decreased to 19.864 employees, while garments and knitwear reached 14.646 workers. Multiple manufacturing laboratories (from rags and by-product suppliers, to sorting, to acid, and heating, ripping dry and water, blending, dyeing, spinning and carding, weaving and finishing) faced a market decrease and were forced to go out of business.

Globalization imperatives brought many entrepreneurs, who had grown rich during the previous decades, to keep their wealth within their families and/or to invest in activities other than textile, which they and their offspring felt carried a lower risk. Inside the district, the decline of wool-carding labourers saw an increased Chinese presence in the garment sector: little by little the Chinese developed a specific district inside the textile district (Dei Ottati, 2013), capturing the local capabilities, settling, and enlarging their local space for their own way of life and their own products. They reached around 30.000 inhabitants working mainly in a low and cheap segment of 'fast fashion', producing very basic one size garments with colourful style, but without any couture dimension, damaging the image of sophisticated and qualified "Made in Italy" fashion products. The two manufacturing communities now work close to one another with similarities in the format of the division of labour based on a network of local small firms. Surprisingly, the two productions are not affluent to each other.

In textile the contemporary carded filière is characterised by small but highly competent companies that survived to a deep selection. Wool is still a reasonable part of the fabric demand. Furthermore, the carded wool has the advantage to be between 1/3 and 1/2 less costly than new virgin wool, it is treated through a mechanical process using recycled water - not chemicals, hence obtaining very qualified yarns. Over the years, the Prato textile system has been capable of profiting by adding value and updating its human and manufacturing skills. Despite the district's evolution, the traditional carded production has maintained its division of labour, and human resources are highly specialised in the different processing phases.

THE CIRCULAR ECONOMY IN THE CARDED PROCESS

Over years, Prato has developed a 'waste strategy' with the specific approach entailed by the tradition of carded process. In terms of sustainability, the carded process allows to save *costs* normally connected to the *pure virgin wool supply*: the sheep farming and grazing on pasture, the agricultural

activities as fertilizers application or irrigation, the exploitation of soil, the collection of the fleece from the sheep through an activity of shearing, the use of fertilisers and chemical treatment of raw wool. Therefore, the carded process might help to safeguard natural resources, contributing to the reduction of water consumption, the savings in terms of kilowatt of energy and tons of chemical and colouring auxiliaries, with significant savings on carbon dioxide and sulfuric dioxide emissions.

The global textile industry is estimated around 16 million tonnes of waste per year: much of this waste is thrown into landfill or incinerated, with a huge environmental impact.

The textile manufacturing cycle is based on *long new fiber* obtained by virgin wool suitable to produce combed fabric, and *short fibers - new or regenerated* - that are mechanically processed on carded textile.

As we can see from the figure 1, each textile phase generates waste and by-products which have also a very different 'economic value'.

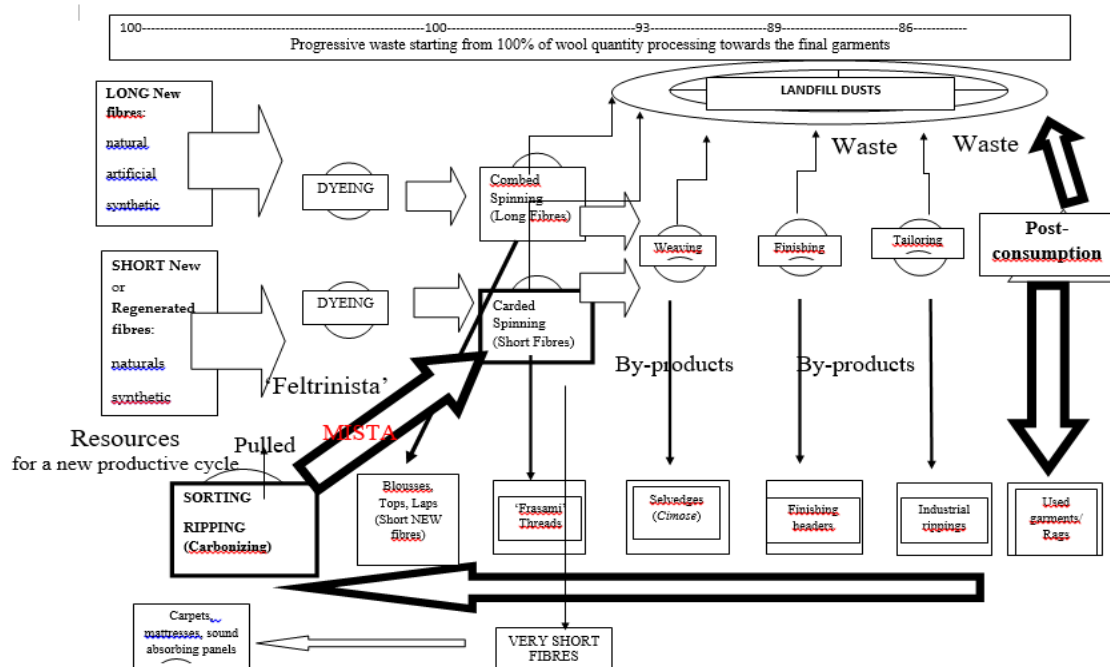


Figure 1. *Textile manufacturing generates second grade raw materials recyclable in the carded process*

Source: Luciano Tanini, Reffill, 2020

The result from the combed yarns is the *noils* (fr. *Blousses*), that are the short and sometimes defective wool fibers removed along the combing process. Also *tops* and *laps*, which are respectively longer fibers generated from combed spinning (tops) and other long fibers obtained by doubling a certain number of slivers (from 16 to 32) previously subject to a drawing passage. From the weaving phase, it can be obtained the *selvedge* (Cimossa), that is a 'self-finished' edge of fabric, keeping it from unravelling and fraying. The term 'self-finished' means that the edge does not require additional finishing work, such as hem or bias tape, to prevent fraying. Without not forgetting the industrial *scraps* deriving from the tailoring cut.

On the scale of values, there are large differences between the various types of waste, and between waste belonging to the same category. The most valuable waste is those deriving from combing, spinning and weaving. Among them, noils, and the laps give rise to a more active trade. Blousses and tops for example are generally valuable waste by-product, while the others belong to the so-called low waste: by the way, the value of both depends on the quality of the original raw materials.

Even for the 'very short fibers' deriving from the carded spinning there is a potential valuable market: they are in fact utilized for the manufacturing of a range of products such as carpets, mattresses, automotive interiors, textile for construction.

Considering the amazing number of by-products and rags waste mix of inputs of the carded process, a central stage is "*sorting*" which is basically manual: people collect, select, classify and divide used clothing according to compositions, colours, and type of fabric (knitwear, gabardine, etc.). Sorting is the fundamental and decisive moment of textile and clothing waste management, and it requires skilled workers, with experienced sight and sense of touch and high capabilities in recognizing and classifying fabric composition and level of wear. The phase of sorting crucially involves the high specialization of the district, which derives from the *know-how* picked up through experience. Of course, there are even chemical laboratories to certify fabric composition.

After the sorting, the process of 'carded wool' consists in a phase of preparation, which entails the sanitization of used textile garments, knitwear pieces and/or waste of sheared, combed, and carded wool. Therefore, the firm proceeds to the removal of non-textile objects like buttons or zippers. Scoured wool contains vegetable impurities that mechanical operations cannot completely remove. Then sulphuric acid is the chemical substance used for destroying these vegetable particles through a process called "*carbonising*".

The following step is to cut or to shred fabrics, thus obtaining well-broken fragments of textile fibers, through machineries that exploit water mechanical dynamics. This kind of operation is performed by small firms, called rippings - "*sfilacciature*" in Italian -, that transform used materials into raw materials or inputs for manufacturing companies. Along the "*ripping*" (made both dry and with water) and "*fraying*" (only dry) phases, the manufacturing process generates an amount of dust which can be re-used for producing 'padding'. After the "*ripping*" (*sfilacciatura*) it is possible to design the 'blend' (MISTA). To create each coloured thread, wool staple fibers of different colours are intermixed, and all the pigments are carefully selected and blended like in an artist's studio. This is the secret of this potpourri of different shades that characterizes *mélange* wool fibers.

The regenerated process of carded wool entails the traditional capability to re-use products surplus available but not marketable, which in turn leads to the pursuit of a *circular economy process* where

material and immaterial factors play in the different productive phases' multiple roles of input, by-product, waste, output, and so on.

SCOPE ECONOMIES: EMERGING FINDINGS ON PRATO CARDED PROCESS

Our empirical observation of the carded process developed in contemporary companies in Prato reveals that the typical variety of economies characterizing the district are a strong point for the local industrial organization.

Firstly, in the carded process located into a specialised area there are quite important external economies, since invisible specialised human and physical capital (Teece, 1980) are *common input for many products*.

Secondly, in the case of Prato, the peculiarity of the process rooted in the atavic heritage of using low-cost materials, enlightens a tremendous capability of high division of labour and activities among micro and small firms and the development of externalities at every stage of the product life cycle.

The analysis also highlights that other types of economies are triggered through the reuse and the recovery process. Those can be identified as scope economies. In the literature, the *economies of scope* describe situations in which the long-run average and managerial costs of a company, organization, or economy, decreases due to the production of some complementary goods and services. An *economy of scope* means that the cost of one good reduces the cost producing on another related good. *Co-products* or *complements* in production, have complementary production process, or share inputs to production and can arise from co-production relationship between the final products (Teece, 1980).

The carded process in the Prato industrial district shows a different kind of economies of scope, if compared to the ones enlightened for the M-form companies and the way of growing towards large firms (Panzar, Willig, 1981). Our research proves that *even the small firms of the industrial district can pursue economies of scope*.

The carded process is sustainable by vocation and it performs the requirement of circular economy in terms of environment, economy, and society. One of the main evidence of our research is that the cuttings and the scraps of fabrics produced along the different steps of the manufacturing process, which then are recycled as by-products, implement *effective scope economies*.

By-products created and re-used in the carded process have value for use by the textile producers themselves. The by-products are generated by each phase and represent a sort of internal costless supply for re-starting the carded process, saving the environmental impact and costs derived from virgin wool (figure 2).

Prato firms are able to 'up-cycle' (Pauli, 1997) the loop in the textile by creatively re-manufacturing not just the new by-products that are wasted from the textile industrial filière (*pre-consumption*) but even

the used garments (*post-consumption*) that are neither resold in the second-hand market, neither classified disposal and then incinerated, but instead re-used in the carded process.

Considering that both combed manufacturing and garment apparel generate by-products, we can affirm that carded is a *complementary production process* of both. 'Carded' develops its process using second grade raw materials that are *pre-consumption by-products* of combed and apparel filière. The feasibility of this complementarity requires specific competences in combining a great variety of by-products (MISTA), regenerating and recycling in a way that enables to obtain the right colours and the demanded quality. The regenerated thread would be then processed in a very careful and professional way, to have a valuable input suitable to be spun.

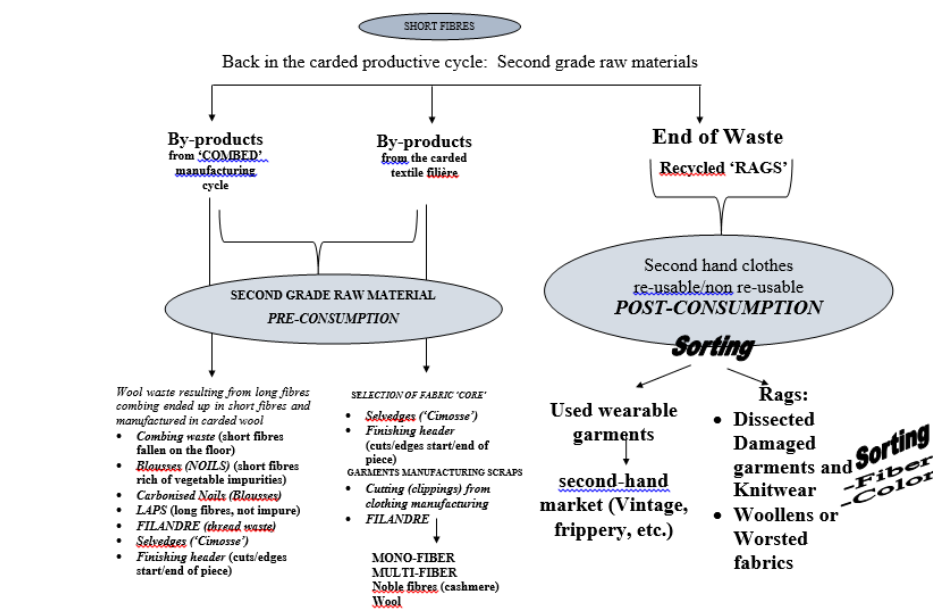


Figure 2. Carded process: pre-consumption and post-consumption inputs

The economic theory focuses on economies of scope in terms of *spared inputs* (land, material, labour and capital, etc.) since normally those have more than one use: they often come from common inputs to the production of two or more distinct goods (Teece, 1980).

Even the 'sorting' is a key part of the carded process where it is remarkably visible how each input has more than one role. Specialised sorting employees are tremendously capable to sort rags by colour, thickness, type of fabric or knitwear, and fitting. The key aspect are the fabric's compositions and the colours. Therefore, even in the end-of-waste, that we define as *post-consumption* supply, are pursued economies of scope derived from the sorting activities that can profit from a quite diversified destination in terms of market: on one side the final consumers and on the other, the production of regenerated new goods. The result is the reduction of the cost of each activity, generating a variety of products able to satisfy different markets such as the process supply and the final consumer.

The *know-how* and the knowledge about colours embedded in the workers capabilities allow to avoid the process of dyeing and enables to skip this polluting step, both contributing to a sustainable productive process and to a cost's reduction. Even the most valuable garments fibers (such as pure new wool, silk, cashmere, alpaca, mohair, etc.), professionally sorted by color and fiber, can be "reconditioned" and merchandised again to the final consumer's market. These garments are in fact very well appreciated because processed in the traditional way as in the past: it is synonymous of authenticity and good quality compared to the amount of low-cost contemporary 'pronto-moda'.

Historically, textile firms in Prato were specialized in regenerating scrap and waste products deriving from the textile industrial supply chain (*pre-consumption*). In the past, the regenerated raw materials came for about 80% from the recovery of by-products deriving from the textile manufacturing process. Instead, nowadays almost 80% of carded wool is obtained from the recycling of used-damaged garments, knitwear, and woollens or worsted fabrics (figure 2), confirming the versatile capabilities of the Prato textile district to adapt themselves to the supply market changes.

Most re-wearable superfluous textile items collected at global level by charities organizations are reused and re-sold (almost 65%). The route of second-hand clothing is defined hierarchically, with the best pieces being resold in western markets (as vintage clothing, frippery, etc.), while lower quality items are exported to Eastern Europe and Sub-Saharan Africa; and the least goods (not just rags, but also clothes ripping) are recycled (32%), and only a small percentage is incinerated or thrown into landfill (3%). The predominance of the second-hand market is obvious. Used clothing has a monetary value, therefore commercial organisations have also entered the market.

Consequently, *scope economies* are pursued not only reusing the textile by-products as a new productive resource along the carded process, but even generating new value when the garments are entering a 'second-life' as an *output* in the used apparel market (frippery).

Sorting, reusing, recycling, reconditioning are all specialised activities that go over the cost reduction in the carded sector. *Scope economies* are performed in the plurality of life cycles of wool products: both in virgin and in mechanical wool it is possible to re-use almost everything, with very limited waste. Unlike other industrial sectors where reuse and recovery require chemical processes with an impact for the environment, the mechanical wool production does not generate waste because every by-products or waste can be recycled and reused. The new yarn is reworked through a process that is based on the power of water instead of using chemical solvents, putting less strain on the environment. The whole process ideally closes the loop of circularity addressing the economic, social, and environmental dimensions: carded wool is a regenerated natural product that, once used, can be recovered again.

CONTEMPORARY AWARENESS OF THE CARDED SUSTAINABILITY

Looking at the historical evolution of the district, Prato has based its industrial business on the reuse of waste from the textile process and on the recycling of second-hand clothing from all over the world. Indeed, the recycling techniques of these fractions - that would otherwise be considered a waste - are in the DNA of the district. The virgin wool has always been a precious and expensive raw material. In Prato, the recycling process had already established structures, cultures, and operational routines. The continuity of the historically long tradition in reusing and saving lower value resources (waste of production, rags, etc.) is nowadays boosted towards the implementation of a modern approach to the circular economy in textile.

This *path dependency* has favoured the development on the one side of institutional relations at European level, and on the other side of new organizational culture, business strategy and management models fully oriented to sustainability.

At institutional level, the Municipality of Prato is the Italian representative in the EU's "Urban Agenda: Circular Economy Partnership" initiative (<https://ec.europa.eu/futurium/en/circular-economy>), besides being the first district in the world to join the Greenpeace "Detox" project aimed at eliminating pollutants discharged into water courses during textile manufacturing processes (<http://www.greenpeace.org/archive-international/en/campaigns/detox/water/detox/intro>).

In terms of industrial economics and organizational models, Prato is striving to ride the wave of circular economy to implement the familiar *'re-use concept' as a point of strength of the district, and no more as an element of 'shame', synonymous with poor-quality products*. Over the last decade the consumer value of this inner tradition has emerged. In 2017, almost 130 companies - operating along all the phases of the textile supply chain (old rag-and-bone men, wool mills, dyeing groups, finishing, and dealers) - have founded the Italian Textile and Recycling Association (A.S.T.R.I.) (<http://www.atrircycling.it>) to preserve and uphold the carded textile. The association is a new lobbyist stakeholder, which represents the specific interests of carded firms, interacting with the Confindustria Toscana Nord (the Tuscan branch of the Italian Industrial Federation) and with governance Institutions. They relate to each other in a dialogue, to make clear and bring at national level the specific needs and regulations that can contribute to the rebirth and revitalisation of the Prato textile district. ASTRI is working to guarantee the sustainable importance of the local productive area. The mission of this Association is to support and to communicate the value of what Prato has been doing since decades, that is its distinguishing specialisation in manufacturing regenerated textiles. The Association is aimed at creating a virtuous process amongst the companies to keep alive the *local know how*, rich in knowledge and skills about the transformation of "potential waste" and by-products into

excellent inputs that have a 'second life', valuable not only to the industrial process and the final product, but also even to the environment.

A large part of the recycling and re-manufacturing process takes place in Prato. In 2017, about 142.500 tonnes of rags have been transformed in the district, while another consistent quota of second hand not-reusable garments is sold to a network of companies placed in Tunisia with whom Prato has entered in 2018 an agreement through our CONAU (National Association of second hand garments) and the Tunisian CONNECT GL FRIPERIE, for selection and foreign distribution mainly in African countries. This puts in evidence an active and prominent role of ASTRI as *advocacy* group participating in technical round-table discussions at Ministerial level for revising the Italian legislation on fiber regeneration process.

Firstly, the actual legislation about the 'end-of-waste' is still stuck in the Ministerial Decree 22/1997 (and its following integrations made by the Legislative Decree 152/2006) which regulates the management of waste disposal. The main issue in economic and organizational terms is to clarify through the regulations when a waste ceases to be a 'waste' and it becomes a *second-grade raw material*, providing more streamlined and faster procedures for textile companies.

Secondly, the textile by-products requirements are not sufficiently effective and transparent. As a matter of fact, the current directive on *by-products* (Ministerial Decree 264/2016) considers industrial waste as disposal. Consequently, textile waste cannot 'legally' be re-processed. This recognition would result in a lower impact of waste on the environment, encourage the re-manufacturing process, and legally authorise the reintroduction of *second-grade raw materials* into the manufacturing carded process.

Thirdly, ASTRI associates perform GRS (Global Recycling Standard) and even EPR (Extended Producer Responsibility), to decrease the environmental impact of a product by making the manufacturer responsible for the entire life cycle of the product and especially for the take-back, recycling, and final disposal, thus anticipating the rules that will be EU obligations since the 1st of January 2025.

Finally, the association highlights the need to slow down the Fast-Fashion trend, the counterculture equivalent of slow-fashion, which is instead based on longer lasting, better quality garments with a lower impact to the environment.

ASTRI is attempting to promote the local textile products with their own "labels and brands" to reveal this peculiar manufacturing process and even guarantee compliance with European regulations on sustainability and the circular economy (GRS, EPR, etc.). For example, under the brand 'Rigenius', fashion fabrics are designed and made of new but regenerated yarns from recycled raw materials, textile by-products and/or used clothes. This whole process, from the yarn to the final fashion product

does not rely on any type of dyeing, *performing the eco-sustainability design and manufacturing* proper to the circular economy philosophy. Carded textile companies begin to be able to supply ecological fabric, providing the garment producer with strong eco-marketing tools, building themselves up to *co-branding* on the final market. ASTRI is definitely campaigning for a kind of promoting activity to *attract young people toward textile industrial processes*. The awareness of having a “unique heritage” embodied into the local textile process is a cultural mission that ASTRI disseminates in Schools and educational processes, involving the local social context.

The emerging contemporary largest stimulus that emphasizes the road map to climate recovery and digital transition, together with the essentials of competitiveness, have revealed the sustainable value of a production process carried out for centuries on the basis of consolidated routines and poor raw materials regeneration. The imperative is to inject financial capital, trained human and managerial resources, and skilled competences in the industrial organization. The risk for local entrepreneurs is to commit the mistake that the heritage of local knowledge today could be considered enough to face globalization challenges giving light to the maintenance of those processes. It is therefore crucial to bring the new generations closer to the awareness and the value of textile carded process.

Moreover, in terms of the local productive system, small family business has a strategic meaning in the industrial organization processes performing. The case of Prato not only pursues the actual trend towards environmental requirements, but it is also very significative as regards to the circular economy, not just in performing it, but also in analytical terms generating a great variety of economies that make sustainable even the industrial organization pattern. In terms of literature, we need to make analytical and theoretical progress on industrial organization conceptual tools. One such process could be to analyse historic and contemporary organizations in the light of both local development and sectoral sustainability. Even in our work, which is a simple in-progress case study on Prato, are emerging a variety of partially known and mainly unexplored dimensions.

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BOOK OF CONFERENCE ABSTRACTS

CONSTRUCTING AN INTEGRATIVE MODEL OF INNOVATION ON HOSPITALITY PERFORMANCE AMONG THE RESTAURANTS

Abdel Fattah, Fadi¹; Rahman, Muhammad Sabbir²; AL Alawi, Abrar³

¹Management. A'Sharqiyah University (ASU), Ibra, Oman

²Marketing and International Business, North South University, Dhaka, Bangladesh

³Business Administration. Nizwa University (UNizwa), Nizwa, Oman

ABSTRACT

Both researchers and practitioners have studied the importance of innovation in the hospitality sector, identified in numerous published papers, and represent the need to expand the body of research on innovation and its influence on hospitality performance. Specifically, in Oman restaurant sector is experiencing higher growth. Previous research showed that the sector might provide a substantial amount of growth in the coming financial year. With the stifling restaurant's business environment, consumer preferences, increasing levels of competition, and the evolving consumer lifestyle, restaurant owners must adapt innovation strategy to meet the hospitality demands of the realities. In today's increasingly growing economy, service organizations such as restaurants need to facilitate innovation drivers comprised with knowledge management system capability, employee's creativity capability, and collaborative innovation capability to remain competitive and relevant in their respective marketplace. It is extensively acknowledged that the restaurant's business operates at an outstanding line between competition and innovation, as hospitality performance optimization implies a formal or informal understanding of complex external environmental factors that affect its performance. Thus, this inquiry aims to formulate an integrated model of innovation that directs to hospitality performance among the restaurants in Oman. The outcome of this research will add value in making suggestions to the local and international restaurants in Oman and the relevant Ministry to understand the significant drivers of innovation to foster hospitality performance, which the researchers did not previously explore.

INTRODUCTION

Research on innovation has widely recognized the enhancement of the magnitude of the firm's performance optimization, and over the past 20 years, research in this area has flourished continuously. The discussion on innovation and optimization of firms' performance can be traced back to several theoretical approaches closely interlink to the developing strategic contingency theory of creativity and innovation theory (Hickson et al. 1971; Hon and Lui, 2016; Johannessen et al. 1999; Salancik and Pfeffer, 1974; Toivonen and Tuominen, 2009;). As the scope expands, becoming

restaurant's operators are more diversified; there is the thrust for a systematic review of the existing body of knowledge, constructing a conceptual model of their performance optimization hospitality and developing models. However, to the best of the existing literature in the scope of the restaurant business, a comprehensive examination in the context of Oman's hospitality performance optimization on innovation in hospitality research is lacking. This research aims to meet the requirement and contribute to developing studies in this area by providing a synthesis of research on innovation in hospitality under the restaurant sector.

It has been noticed that the majority of research on hospitality in the context of OMAN investigated under the organizational perspective highlighting different agenda such as the hotel industry by focusing on their performance evaluations (Oukil et al., 2016); education on hospitality and tourism (Abdul-Ghani, 2006); emerging trends in the tourism industry (Baporikar, 2012) and partly in Islamic hospitality (Stephenson, 2014; Khan and Krishnamurthy, 2016). The present research will explore and explain the drivers of innovation in a specific sector, such as restaurants, and the components of its strength, which will provide valuable input to the restaurants' performance literature. Moreover, the proposed research also builds a theoretical contribution to the existing hospitality literature by explaining the role of hospitality innovation orientation under the umbrella of behavioral aspects among the staff of different restaurants that ultimately serve Oman's Ministry of Tourism.

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK DEVELOPMENT

The literature showed that a firm's capability for performance optimization is also influenced by inter-organizational innovation orientation for a successful outcome. Besides, innovation and firm's performance has been investigated not only in a range of manufacturing sectors but also in the context of the service sector as well (Bustinza et al. 2019; Calantone et al., 2002; Kalmuk and Acar, 2015; Roy, 2020; Salunke et al. 2019). In the same vein, several studies also agreed that understanding external environmental stimuli has necessary implications for the conceptualization of innovation in this industry that influence hospitality performance optimization (e.g., restaurants) (Campo et al., 2014; Lee et al., 2019). In this context, it is claimed that interfirm structures are crucial for attaining the capability of the knowledge management system, staff creativity, and collaborative innovation (Alkhurairi et al., 2016; Bose, 2006; Lugosi, 2008; Okumus, 2013). Moreover, hospitality research stressed the importance of innovation orientation to optimize hospitality performance among the restaurants' (Siguaw et al. 2006; Slater and Narver, 1994; Tajeddini and Trueman, 2012).

In line with increasing attention to innovation in hospitality, research on innovation in these sectors has rapidly increased in the past years (Aday et al., 2017; Casais et al., 2020; Gomezelj, 2016; Kallmuenzer, 2018; Martin-Rios and Ciobanu, 2019).

However, the restaurant industry's highly dynamic and competitive nature demands innovation in every aspect of the business, including its processes such as "hospitality." Without a doubt, restaurant owners must have innovativeness to ensure that their service enterprises can compete and survive the dynamics of the business environment through hospitality performance optimization, where the current research will add value (Alola et al. 2019; Bani-Melhem et al. 2019).

Following the interpretation and justification above, the study proposes a conceptual model that investigates restaurant's drivers of innovation and value system as a mediator of the influence on hospitality performance optimization. Also, the study extends its aim to examine the moderating role of external environmental power between hospitality innovation orientation and hospitality performance optimization.

This research would like to propose the following conceptual model.

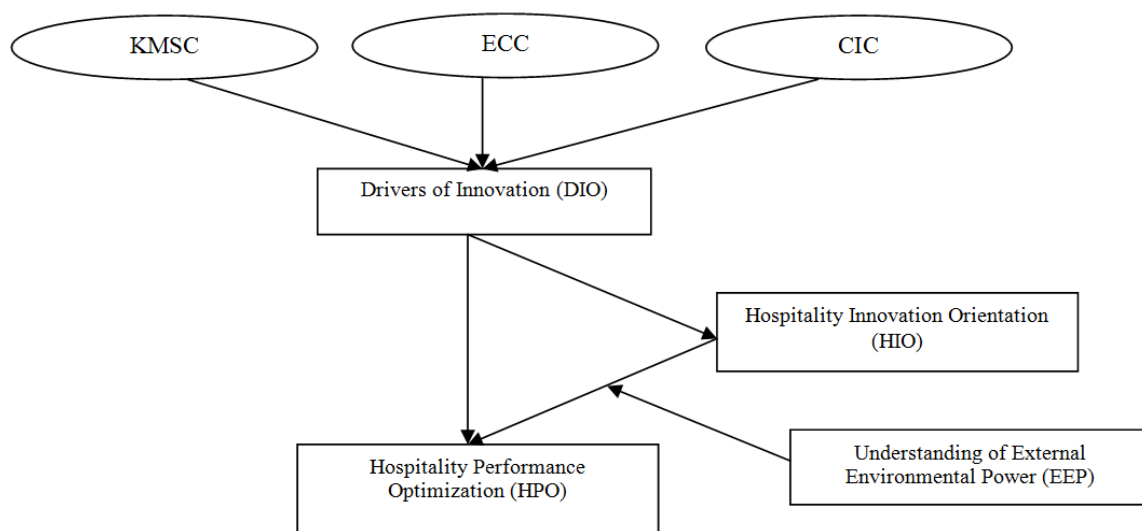


Fig. 1. Integrated conceptual model of the restaurant's hospitality performance optimization.

Notes: KMSC: Knowledge Management System Capability, ECC: Employees Creative Capability, CIC: Collaborative Innovation Capability.

This conceptual framework was developed based on an extensive review of prior literature.

Consistent with these findings, Table 1. Showed the prosed prepositions formulated.

Table 1: Prosed Prepositions

Proposition Number	Proposition statement
P1	In the restaurant's service, HIO significantly mediates the relationship between DIO and HPO
P2	In the restaurant's service, DIO significantly relates to HPO
P3	DIO considerably affects the relationship towards HIO in restaurant service settings
P4	There is a significant relationship between HIO and HPO
P5	The relationship between HIO and HPO moderates by EEP

CONCLUSION

In this study, the proposed conceptual model is considered one of few studies that predict the mediate binding effect of understanding external environmental power between hospitality innovation orientation and hospitality performance optimization, focusing on the case on Oman restaurants. In respect of hospitality and tourism industries, this study sheds light on three antecedents (knowledge management system capability, employee's creative capability, collaborative innovation capability) determine hospitality innovation orientation mediated by the understanding of external environmental power, which helps deliver a precise understanding of obstruction factors that limit these corporates' success. Simultaneously, we significantly contribute to new findings on the applicability and added contribution of innovation and strategic contingency theory among the restaurants for hospitality performance optimization as a breakthrough to develop an integrated model that the nation (OMAN) is proud of the hospitality culture. This study also provides marketing researchers, managers, and practitioners with insights into the primary determinant that confined Hospitality Innovation Orientation by providing an improved strategy to guarantee retention of various customer segments.

STUDY IMPLICATIONS

This research is relevant from both theoretical and managerial perspectives. This research contributes to an increased understanding of the restaurant's hospitality performance optimization antecedents from a theoretical perspective. From a management perspective, the study guides restaurants' owners and managers in terms of the appropriateness of the innovation and value systems tools and strategies they use to enhance their hospitality performance. More specifically, the proposed moderator is expected to explain and helps restaurants to identify situations in which hospitality innovation orientation and hospitality performance link. In this aspect, the restaurant needs to aware of certain variables for retaining its competitiveness.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Even though this study showing exciting theoretical results, few limitations also emerged. This study focused on constructing an integrative innovation model on hospitality performance among the restaurants leading to customer satisfaction in Omani. As this study attempts to explain the relationships among the involved constructs, further empirical studies must validate the proposed conceptual framework. As several limitations restrict the present study, this provides us with avenues

for future studies and recommendations. Therefore, further research should empirically test the study constructs.

Keywords: Drivers of Innovation, Hospitality Innovation Orientation, External Environmental Understanding Capability, Hospitality Performance, Restaurants, Oman.

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DOES DIGITALIZATION DRIVE SUSTAINABLE ENTREPRENEURSHIP?

EMPIRICAL EVIDENCE FROM ITALIAN FIRMS

Abid, Nabila; Marchesani, Filippo; Ceci, Federica; Masciarelli, Francesca

Department of the Management and Business Administration, University of G.d'Annunzio Chieti-Pescara, Italy

ABSTRACT

Recently sustainable entrepreneurship has emerged as a new phenomenon in entrepreneurship to achieve economic, social and environmental goals (Shir et al., 2019). In the start, sustainable entrepreneurship ideology lies between entrepreneurial activities and the environmental objects and goals (Elkington, 1994). With the evolution of the concept, Cohen & Winn (2007) define sustainable entrepreneurship as the process of the assessment of opportunities to create goods and services and identifying the economic, environmental and social outcomes. Researchers like Gast et al. (2017) and Munoz and Cohen (2017) emphasized the role of entrepreneurship in achieving environmental well-being and bridging the differences embedded in a society. However, a conflicting situation often arises in an attempt to create a balance between organizational objectives and external environmental concerns (Laasch, 2018).

In the actual economic scenario, we believe that 2 elements play a role in influencing and supporting sustainable entrepreneurship: digital transformation and institutional support. As regard to the first one, few studies (e.g., George et al., 2020; Parida and Wincent, 2019) emphasized that digital transformation can help sustainable entrepreneurs to deal with environmental, societal, and organizational challenges and ensure efficient outcomes for all. Thereby, digital transformation is deeply rooted deep in entrepreneurship practices aiming to achieve sustainable goals and support entrepreneurs in a change process to achieve sustainability (Nambisan, 2017; Seele & Lock, 2017; Yoo et al., 2010). Digital transformation is a vital phenomenon that acts as a catalyst to channel profound changes in the business sector and help achieve organizational, environmental, and societal goals with the deployment of digital technologies (Agarwal et al., 2011; Majchrzak et al., 2016). Despite exploring the impact of digital technologies on business processes, there is still a need to identify the relationship between digital transformation and the entrepreneurial process and the resulting consequences of this interaction (Nambisan, 2017). Moreover, digital technologies significantly impact entrepreneurial activities, but the knowledge context is still limited (Elia et al., 2020). Secondly, it is widely accepted that institutions play an important role in driving business activities. According to Estrin et al., 2013 institutions impact entrepreneurship as they affect the portion of potential revenues entrepreneurial firms generate. However, Webb et al. (2009) stated that institutional pressure doesn't

affect all levels of entrepreneurial activities. Previous studies have controversial results on if institutional pressure affects entrepreneurial activities (Deng, Liang, & Fan, 2019).

Based on the above concerns and studies, the present article develops the following research questions. First, does digital transformation drives sustainable entrepreneurship practices in Italian firms? Second, does institutional pressure mediates the relationship between digital transformation and sustainable entrepreneurship in Italian firms? This study will add to the existing body of digitalization literature by incorporating the sustainable entrepreneurship in the Italian context by developing a novel framework, and the result will produce new insights for academics, policymakers, and relevant stakeholders.

In this paper, we are using the Generalized Method of Moments (GMM) approach to verify the research framework and hypotheses. Since our specifications, the mediating variables are institutional pressure, hence the risk of reverse causality with the environmental performance and green practices (Omri & Bel Hadj, 2020). We based our research at city-level, to better understand the impact of urban digitalization on sustainable economic context. Our research sample is based on the main 20 Italian cities for eight years (2012-2019). Our dependent variable is the digital transformation in the city and independent variable is the presence of sustainable entrepreneurs in cities. Institutional pressure is a moderator in our framework. This set of variables allows us to have a more comprehensive understanding of the role of city context on the sustainable development of firms. Based on previous literature and several databases such as ISTAT, EUROSTAT, and municipal open data, we propose a set of dependent variables, including Green firms in cities, EMAS and ISO 14001 adoption, green technologies, and environmental performance of cities and young entrepreneurs.

The impact of sustainable entrepreneurship development is tested by linking the digitalization process within the spatial context of the city. The preliminary results confirm a relationship between the cities' digitalization and sustainable entrepreneurship as drivers of this phenomenon; furthermore, institutional pressures moderate this relationship. The findings have several implications both for scholars and practitioners. From an academic perspective, the digitization process is considered has been considered as an engine of economic development (REF) but also could be related to sustainable and social contexts. From a practical view, these results suggest politicians and policymakers invest more in the city's technological development to offer significant drivers of sustainable development to local businesses.

Keywords: Digitalization, Sustainable entrepreneurship, green firms, green practices, ISO 14001, EMAS, green technology, environmental performance

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ENTREPRENEURS' WELL-BEING IN THE SPECTRUM OF A CRISIS

Afxentiou, Georgios

CTL Eurocollege, Cyprus

ABSTRACT

Entrepreneurs are expected to face constructively the crises caused by nature such as viruses, earthquakes, floods, fires, tornadoes as well as man-made destructions such as wars, climate change, and political instability in countries. This research focuses on the well-being and mental health of entrepreneurs in a crisis and subsequently on the development of new businesses and the sustainability of existing businesses. Entrepreneurs typically invent new products or services and introduce them to the marketplace by launching a business venture (Gartner, 2001; Volery & Pullich, 2009). Entrepreneurship can be extremely stressful due to high levels of uncertainty, change and risk, and the vast array of responsibilities entrepreneurs must navigate whilst working long hours (Baron, Franklin & Hmieleski, 2016; Hahn et al., 2012; Uy, Foo & Song, 2013; Newman et al., 2018).

Entrepreneurs define health from a negative side (i.e. not being sick) and perceive health as a means to perform their tasks (Volery & Pullich, 2009). Based on literature a question arises about the impact level of entrepreneurs' health and mental conditions during the pandemic crisis on the innovation of products/services/processes, the sustainability and development of businesses. Prior studies focused on the effects of entrepreneurs' well-being on business performance and finance (Volery & Pullich, 2009, Brown et al., 2020). Shepherd & Haynie (2009) stated that the ability to deal with stress and to maintain high stress and well-being (SWB) can influence the performance of entrepreneurial ventures. Additionally, Volery & Pullich (2009) supported that stress is a major factor affecting the mental well-being of entrepreneurs.

The researcher will deploy interviews and questionnaires to small business owners (1-9 employees) to identify the challenges of the pandemic crisis, the state of well-being and mental health of entrepreneurs and the financial outcomes as indicators of the business sustainability and development. The interviews are expected to take between 45 to 60 minutes online by using teleconference applications. The questionnaires will be emailed to business owners and managers in two hundred small businesses in various industries. The questions will include topics on entrepreneurs' well-being, mental health, behaviour, decision making, innovation of products/services/processes, profitability, revenues, debt and future development plans. This study contributes to the theory about specific characteristics of well-being and mental health of entrepreneurs (behaviour, anxiety, exhaustion, decision making) on the development of new businesses and the sustainability of existing businesses. Additionally, this study is beneficial to

practitioners concerning their psychological status, behaviour, soundness of decision making, wellness and therefore the good management of their businesses in a crisis and the development of new products/services/processes to sustain their businesses.

Keywords: Entrepreneurship, crisis, pandemic, well-being, mental health, innovation, sustainability.

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THE SOCIAL INNOVATION ECOSYSTEMS IN BUSINESSES CREATE SUSTAINABLE SOCIETIES

Afxentiou, Georgios

Georgios Afxentiou Research Laboratory, Larnaka, Cyprus

ABSTRACT

The economy in small communities could be supported by the infusion of businesses' social innovation ecosystems. This research aims to study the construction of social innovation ecosystems in businesses to support local economies. Research shows that social entrepreneurship and social innovation are tools that meet social challenges and contribute to sustainable development (Pozzebon & Fontenelle, 2018). The development of innovative products/services for social needs will benefit people in the local communities by alleviating poverty, improving health, nurturing progress among others. A partnership of private and public organisations in developing new products/services will generate new job positions, boost the economy and create a sustainable environment in the society.

Social innovation concerns complex issues in various areas of society - employment, poverty, housing, health care - and is directed towards vulnerable groups in society (Mulgan, 2006). A question arises about the construction and contribution of the social innovation ecosystems in businesses to the economic sustainability of the communities. The analysis of the value of the social innovation ecosystems in businesses could reveal its importance in the development of the society. Based on literature social performance depends on an organization's capacity to generate positive social impact (Smith et al., 2013), that is, to maximize the value the organization creates for society by tackling social and/or environmental problems (Battilana et al., 2015). A social enterprise adopts innovations that impact social performance when it implements new products, processes, and services that increase the value it creates for society and scale its social impact (Nicholls & Murdock, 2012; Phills, Deiglmeier, & Miller, 2008; Santos, 2012). Understanding the dynamics of social innovation and the role of businesses in societies could be valuable for the people in need. Pol and Ville (2009, p. 884) affirm: "The ultimate end of social innovation is to help create better futures". Therefore, the research question will be addressed with the investigation of the methods in constructing the social innovation ecosystems in businesses to support sustainability in the society.

The study will be conducted with the use of questionnaires and online interviews to community leaders, business owners and civilians. The questionnaires and online interviews will include policies of management for creating social innovation ecosystems in businesses, process in generating ideas,

integration of social innovation in the local economies, benefits of the collaboration of businesses and communities among others. The questionnaires will be emailed to two hundred (200) participants with a time period of one month. The participants will need between twelve to fifteen minutes to complete the questionnaire. The data will be analysed with the use of SPSS software. Also, the researcher will discuss in depth the above topics with fifty (50) participants of the sample of community leaders, business owners and civilians. The interview process is expected to take between thirty to forty minutes. The interview transcripts will be analysed with the use of Nvivo software. This study contributes to the theory about the methods in constructing the social innovation ecosystems in businesses and also to the sustainability of the society such as jobs, health care, education. Additionally, this study is beneficial to practitioners by introducing new methods in infusing social innovation ecosystems in businesses to create a sustainable economic environment in the communities.

Keywords: Social innovation ecosystems, innovation strategy, sustainability, communities.

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MODELING FRAMEWORK TO GLOBAL QUALITY MANAGEMENT SYSTEM (G-QMS) IN SYSTEM OF SYSTEMS (SOS) IN THE 21ST CENTURY

Agmon, Noga; Kordova, Sigal; Shoval, Shraga

Department of Industrial Engineering and Management, Ariel University, Ariel 40700, Israel

ABSTRACT

INTRODUCTION

The current research integrates, for the first-time, a relatively new and rapidly evolving disciplines of Quality Management Systems (QMS), System of Systems (SoS), Globalization and Systems approaches such as Systems Thinking, by defining a field of research for G-QMS in global SoS organizations. This discipline is greatly relevant and innovative in the academic research and in the applicable business organizational field. The current study presents QMS that includes the reference to global organizational aspects as well as the reference to relevant aspects for organizations which are SoS, that are missing in the existing international standards for QMS. In order to support these missing aspects, the process approach that underlies the ISO international standards for QMS is expanded by introducing systems approaches, in particular, Systems Thinking. Figure 1. outlines the field of the research by illustrating the incorporated disciplines.

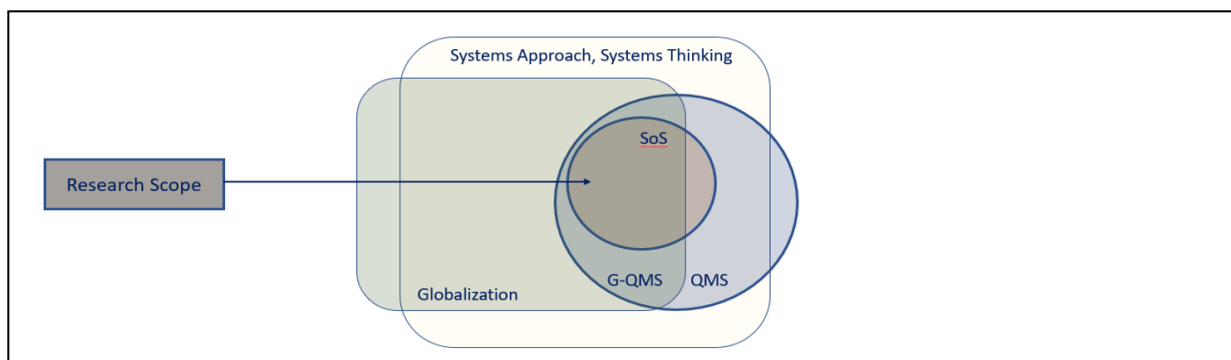


Figure 1. An overlap view among the disciplines incorporated in the research

G-QMS in global SoS organizations is not yet defined. There is still no definition, defined structures or standards for G-QMS in global SoS organizations, and there is great motivation to advance and develop this. The current study uses the Grounded Theory (Strauss and Corbin, 1994) combined with analytical review and professional experience which provides a framework for identifying the new key variables in the multidimensional environment of global management.

RELEVANCE AND CONTRIBUTION

Each of the disciplines, which are involved in the field of research, are relatively new and rapidly evolving. International standards of QMS are developed and updated once a decade and accordingly the organizations adapt themselves to the updated requirements. SoS organizations grow and become established, and with it, academic research of SoS is evolving. The globalization aspects are relevant in today's interconnected world – global world, and in particular when dealing with SoS organizations. In fact, the academic literature on what shall be considered as global-QMS is also in an embryonic state. Systems Thinking, is also a new and evolving discipline, providing perspective and tools that are relevant and can be supported when integrating QMS in global SoS organizations. Systems Thinking can provide a great deal of power and value which are the base infrastructure for the development of frameworks for elements such as: structure, motion, dynamics, interrelationships and interactions, including interrelationships with the environment. Likewise, a Systems Approach has the motivation to be integrated in the SoS' structures and characteristics. According to the SEBoK (2020), SoS is a relatively new area, with the result that there has been limited attention given to ways to extend Systems Thinking to the issues particular to SoS.

PURPOSE

The purpose of the study is to examine a modeling framework to Global Quality Management System (G-QMS) in Systems of Systems (SoS) in the 21st century.

METHODOLOGY AND STUDY DESIGN

The study paradigm combines analytical review and structured qualitative study. The analytical review deals with the four main disciplines and focuses on the actual and potential interrelationships and interactions among the disciplines, in order to create a framework of knowledge for this field of research. The structured qualitative study uses the Grounded Theory as its theoretical and methodological framework and is based on semi-structured interviews with attentionally chosen experts. Data analysis includes the use of strategies that demonstrate different techniques for data analysis. Among them is the first stage of the analytical induction technique, the constant comparison technique, counting and quantification methods that include criteria and consistency in the data collection techniques. Data analysis was performed using the content analysis techniques. In order to ensure validity and trustworthiness, the analysis was meticulously conducted according to rules and procedures.

SUMMARY OF MAIN RESULTS AND CONCLUSIONS

The current study is focused on G-QMS in global SoS organizations, creating a theoretical foundation, and introducing logical deductions regarding G-QMS, which will be used as base principles for a G-QMS definition and a G-QMS model. The results of the study and its conclusions will be published in a paper. However, as a brief summary, an analysis of the study findings shows that G-QMS is very significant and is required for these organizations, in terms of being a necessary condition. G-QMS is one of the management issues in the main-management of the SoS, and therefore the management of G-QMS is inseparable from the management of the SoS. The results reveal **18 aspects** to be considered in any definition that will be determined for G-QMS in global SoS organizations, and for any model that will be developed. From these, combined with the literature review and professional experience, **8 base anchors** of the model were analyzed and mapped, as well as its main factors. Any of these base anchors concluded by the study has its own contribution to any further development in this area; however, considering them all, an **initial model** of the G-QMS in global SoS organizations is created.

Keywords: Quality Management System (QMS), Global Quality Management System (G-QMS), System of Systems (SoS), Globalization, International Organizations, Global Management, Systems Theory, Systems Thinking.

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CRITICAL THINKING DIGITAL SKILLS IN HIGHER EDUCATION

Antoniades, George; Malkawi, Elena

Dept. of Business, CTL Eurocollege, Limassol, Cyprus

ABSTRACT

As the workplace is increasing demand for searching and receiving information from on line sources regarding many areas, digital skills are considered very essential into finding information. Information digital skills are the skills to find, process and manage information. The amount of online information and the proliferation of databases make using search engines effectively and efficiently essential (Ananiadou & Claro, 2009).

This study will focus on the degree people working as instructors in higher education have, regarding their ability to make informed judgments about the information and communication based on sufficient reflection and evidence. This ability according to Van Laar et al (2019) is named Critical thinking digital skills.

The study will focus in the higher education field and will include academics currently practicing to deliver online classes in Universities and Colleges around Cyprus, aiming to find 1) determinants effecting critical thinking digital skills and 2) the degree each of these determinants influence the skill under study. To support hypotheses about the effect of determinants on critical thinking digital skill multiple regression analysis is chosen. The study will use 5-point Likert scale questionnaire that will be distributed to educators online. The specific population was chosen since educators are expected to promote critical thinking to their students, especially now that technology is a huge part of our everyday activities, and therefore it is interesting to see what determines and influence critical thinking digital skills for the people that promote it. Little previous research was conducted regarding Critical Thinking Digital Skills, and therefore information from this research is extremely valuable, especially now that technology in a great degree was “forced” in many educational institutions due to the pandemic. Previous studies like for example “Determinants of 21st-century digital skills: A large-scale survey among working professional” by Van Laar et. al. (2019) have examined digital skills of working individuals, but none have concentrated on the education industry. Expected findings will illustrate an existing level of Critical Thinking Digital Skills and will help to define specific determinants of the skill under study. With the findings of this research, education industry which is a supplier of future managers, entrepreneurs and employees can capitalize on the development of critical thinking digital skills.

Keywords: Critical Thinking, Digital Human Skills, Online Learning, Workplace, Higher Education.

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A NEW PARADIGM OF SENSORY MARKETING FOR THOSE IN NEED: EXPLORING NGOS AND VIRALITY DURING AND POST COVID-19 CRISIS.

Avgeropoulou, Aikaterini; Melanthiou, Yioula

University of Nicosia School of Business Department of Marketing, University of Nicosia, UNIC, Nicosia, Cyprus

ABSTRACT

INTRODUCTION

Since the start of the COVID-19 pandemic the word 'viral' holds a negative connotation for almost everyone. In the marketing world, however, words such as: 'viral marketing' and 'virality' carry a positive connotation and are highly desirable. Virality's importance in the marketing world, stems from the fact that when something goes viral, it automatically becomes extremely popular, in a very short amount of time and to a very wide audience (Martin et al., 2020). According to existing literature, while virality is extremely desired by marketing professionals, businesses, NGOs and individuals, much remains to be understood (Jankowski et al., 2018; Reichstein & Brusch, 2019; Lappas et al., 2020; Motoki et al., 2020). In a time of crisis where virality is considered more valuable than ever, research indicates that digital/online sensory marketing is an innovative marketing approach which can affect and even alter consumer behavior thus leading to increased consumer engagement and potentially virality (Rathee and Rajain, 2017; Petit et al., 2019). Thus, online/digital sensory marketing has a lot of potential for NGOs and companies, if applied appropriately. Scholars state that online sensory marketing is still not applied with maximum efficiency due to the various different aspects of sensory marketing that are still unexplored (Petit et al., 2019). Thus, it is necessary to gain more in-depth knowledge, in order to draw further insights in terms of the right choices from marketers on deliberately combining and triggering specific senses when creating a marketing campaign. Since humanity is facing a global crisis with serious fiscal and moral implications, the mission of Non-Governmental Organizations (NGOs) is now more relevant than ever. Although (NGOs) have already experimented and applied marketing techniques adjusted to social media, still they do not create as engaging content in terms of marketing material (Berger & Milkman, 2011; Meek, 2012; Mohr, 2014; Hietanen et al., 2014; Lins & Aquino, 2020; Laato et al., 2020). NGOs are needed to assist humanity in this global crisis. Thus, it is necessary to gain a deeper understanding regarding the link among digital sensory marketing, and virality for the benefit of NGOs so that they can have powerful tool to assist their organizational mission.

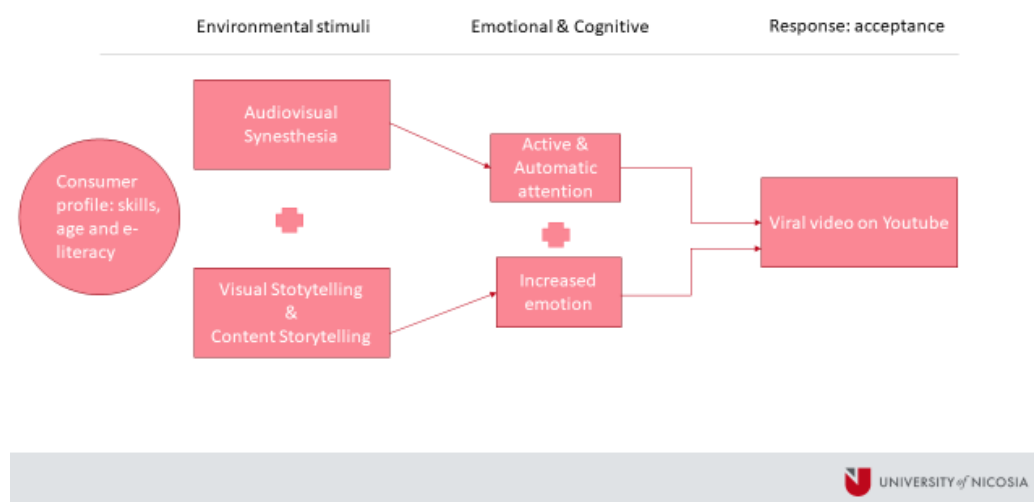
AIM

To explore factors which if combined, they can lead to the creation of viral video-campaigns on YouTube with low cost for NGOs, in order to assist them on major challenges during and after the pandemic.

RESEARCH DESIGN & METHODOLOGY

The methods employed for the present research are qualitative case study and netnography. Netnography: is on describing and interpreting cultural behaviour. Qualitative case study is a method designed to empower the researcher in order to closely examine data within a specific context (Zainal, 2017). Usually, a case study method selects a clearly defined and small geographic area and a small sample number. Case study in its essence is designed to investigate real-life phenomena through detailed analysis of a specific and small number of events or conditions, and their relationships (Zainal, 2017, p.1-2). Netnography is a qualitative, observational method, which will be used in order to interpret and to observe without the researcher interfering, online YouTube content. Netnography is also an ideal method for the purposes of the specific research, since Netnography is a tailor-made method developed specifically for the qualitative study of social, online media, and communities, such as YouTube (Kozinets, 2010). Netnography was first introduced in 1995 by Kozinets and the aim was to research and to understand the online world (La Rocca et al., 2014). Netnography is tailored specifically in order to be a research tool crafted for consumer behavior and marketing research (Sandlin, 2007).

INITIAL FRAMEWORK



Keywords: Viral Marketing, NGOs, Sensory Marketing, Cinematography, Audio-Visual Appeal, Netnography, Consumer Behavior

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ONLINE CHANNEL MANAGEMENT FROM MANUFACTURERS' PERSPECTIVE: ONGOING DEBATES AND RESEARCH AGENDA

Ballerini, Jacopo; Bresciani, Stefano;Goria, Mirko

Department of Management, University of Turin, Turin, Italy

ABSTRACT

INTRODUCTION AND LITERATURE GAP

In the last decade, digital technologies beat most of all the pre-existing barriers to the development of electronic commerce, and, in the last year, in particular, the covid-19 pandemic ulteriorly pushed the online channel market penetration globally in every sector (Statista. Inc, 2020). Retailers and manufacturers are launching their e-commerce platforms or selling products online through online marketplaces or indirectly. Scholars deeply investigated the factors and drivers of online purchasing from the consumer perspective (Mishra et al., 2021) and the strategies, enablers and barriers under retailers perspective (Melacini et al., 2018), producing empirical studies and literature reviews. However, scholars investigating the management of the eCommerce channel and related strategies are much more recent, the path is still untrodden and nebulous, and no review of the few related pieces of literature has been made. This paperwork aims to produce an exhaustive review of the literature on the mentioned topic, discuss the actual body of knowledge outcomes, and provide insights for future research.

METHODOLOGY

First, we opt for a bibliometric analysis to avoid potential bias typically generated by the subjective interpretations characterising the exclusive recourse to systematic literature reviews (Zupic and Čater, 2015). Based on the common words used in literature to identify manufacturers and electronic commerce, we developed the following search query:

TITLE-ABS-KEY ((manufacture*) OR (vendor*) OR (producer*)) AND ((ecommerce) OR (electronic AND commerce) OR (e-commerce) OR (online AND sales) OR (online AND channel)) AND (strategy) OR (manage*))

The Scopus database, which is considered an ideal scientific database for systematic literature reviews (Kraus et al., 2020), was used to perform our search. The “*” operator was used as a dummy character to include as many lexical variants as possible. In accordance with the literature (Kraus et al., 2020),

considering the managerial perspective of our review, we selected only journal articles or reviews in English, already published or in press, released by 15 April 2021 and belonging to the subject areas of business, management and accounting. The implementation of our search query allowed us to select a dataset of 801 publications. Then, we only included pieces of literature edited in peer-reviewed journals since they are primarily considered to include valuable scientific contribution. After this adjustment, the pool of references amounted to 424 units. Subsequently, we opted to exclude all the content published in journals not ranked in the Academic Journal Guide (AJG) to refine the sample with a representative, rigorous and unbiased lens. This criterion led to a final pool of 325 references. Then, after an independent reading of all the papers left, we excluded 234 pieces of research considered non-relevant to the determinants affecting manufacturers' online channel management choices. Finished the process, the studies considered aligned to our research question were 91.

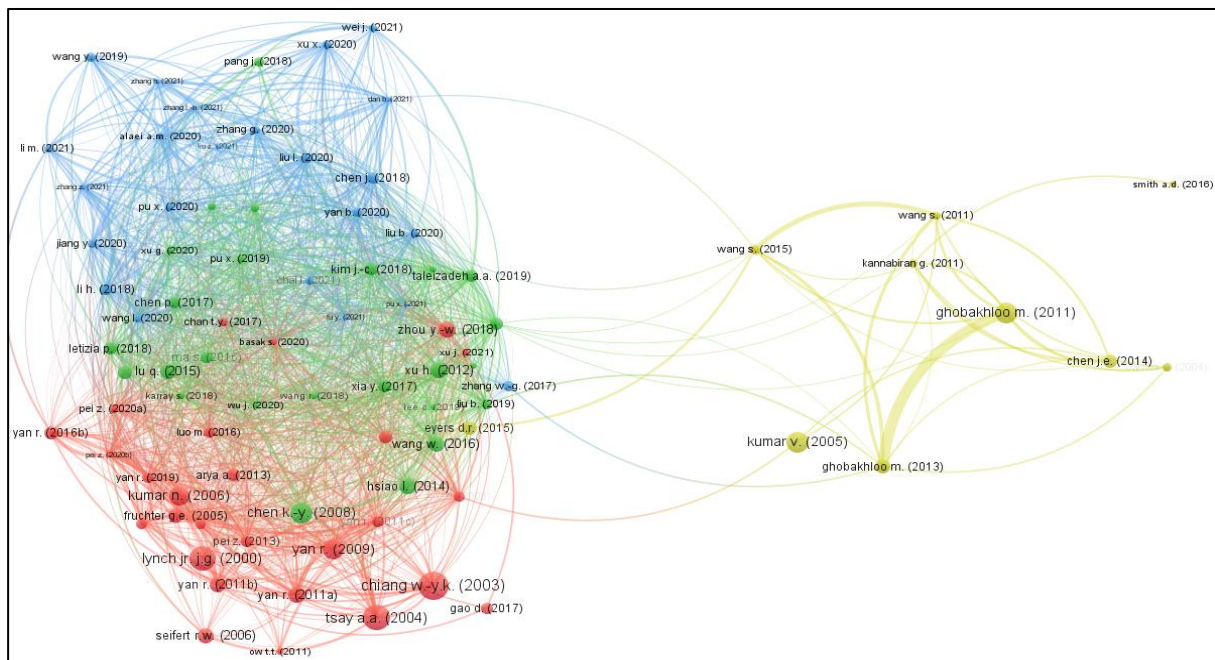


Figure 9: Similarity analysis graphical map

Then we implemented a backward and forward snowballing process intending to check the credibility of the search and the selection. This process was conducted by manually screening the references of all 91 documents and confirmed the reliability of our selection protocols. To analyse the literature's structure and evolution, we investigated some relevant bibliometric indicators (Todeschini and Baccini, 2016). Then, using the software VOSviewer 1.6.10 was conducted a similarity analysis thanks to the software's bibliographic coupling algorithm, on which two contributions are considered to be coupled have one or more common third studies in their bibliography by building a graphical map where each sphere represents a paper, and the papers are split into clusters as a function of the similarity of their references (van Eck and Waltman, 2010). As a result of our similarity analysis, 87 papers were found to

be connected in terms of shared references, forming a graphical structure composed of four clusters whose configurations appearing well defined (figure 1).

PRELIMINARY RESULTS

The year with the highest productivity was 2020, with 15 publications, but just the first quarter of 2021 produced 13 publications, a symptom of the rising managerial and scientific interest in the topic. The distribution between the journals is very balanced, counting 42 journals in total, indicating the multidisciplinary and complexity of the topic, even if the main specific scientific fields covered are production and operations. The distribution of studies per author reveals a restricted number of productive scientists with three or more publications (six), while the distribution by country highlights that the scientific production is mainly focused in US and China (countries with high online channel market penetration), representing the 88% of the total. The yellow cluster focuses on the barriers and enablers companies face when introducing online selling. The green cluster deepens the logistic side of the electronic commerce distribution. The red cluster faces the conflict issue between online and offline channels. The blue cluster focuses on the possibilities of manufacturers and retailers synergies and the different online distribution options.

CONTRIBUTION

The original value of the proposed study is that it consists of the first one to deeply analyse the literature facing the electronic commerce channel management under the manufacturer's perspective by providing three different pieces of contribution to literature and practitioners. First, the study provides bibliographic statistics enabling a clearer vision of the worldwide distribution of the research topic, its development and its trends. Second, a profound content analysis of each of the four identified clusters by highlighting the advancement status of the scientific research on each subfield of the topic of interest and a synthesis of the key concepts is executed. Finally, the study draws future research avenues aroused from possible gap left by extant literature. In particular, although we are still in a preliminary phase, the foreplay content analysis conducted up to this stage of the work can identify already two main avenues that scholars have not yet beaten. The first is the identification of the critical organisational and technical capabilities influencing the online channel management performances. The latter is the research on the several kinds of electronic commerce platforms and approaches and their influence on manufacturer's performance in both the online and offline channel under different endogenous or exogenous conditions and factors. Lastly, the most common and cited pieces of literature are purposing either conceptual works or other game theories; little research has been

conducted with real primary data, and we suggest future researchers could opt for quantitative methodologies for further investigation.

Keywords: Digital commerce; eCommerce; Electronic Commerce; Online Channel; Channel Management; Digital distribution; Manufacturer; Systematic Review

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FAMILY FIRMS AND CONSUMER BEHAVIOUR IN THE ONLINE CHANNEL: A SYSTEMATIC LITERATURE REVIEW AND RESEARCH AGENDA

Bargoni, Augusto; Santoro, Gabriele; Giachino, Chiara; Bertoldi, Bernardo

Department of Management. University of Torino, Turin, Italy

ABSTRACT

Family firms, as being the most spread form of business in economically advanced countries, the backbone of the industrial network of modern economies and the representation of a self-standing category of entrepreneurs, have long attracted academics and practitioners (Bird et al., 2002; De Massis et al., 2012, 2018; Miroshnychenko et al., 2020). The first, to understand the unique intertwining of the family, the ownership and the business (Davis, 1983) while the latter with the objective to refine their trade with family business with considerable success (Bird et al., 2002). However, the rise of digital technologies, the change in generational cohorts whose buying habits are shaped by the amount of information co-created online and the influence of electronic word-of-mouth (eWOM) (Erkan & Evans, 2016; Prasad et al., 2019), has led to a dramatic shift in power from firms to consumers (Celi, 2019; Coelho et al., 2019; Cova & Dalli, 2009; Khoros, 2020; Labrecque et al., 2013; Martin & Schouten, 2014). In this new digital environment, academics face now the challenge to understand the impact of family firms and family firms' brands on consumers' behaviours.

However, the theoretical foundations on the intertwining between family firms and consumer behaviour in a digital environment remain fragmented (Andreini et al., 2020; Binz Astrachan et al., 2019; Dos Santos et al., 2019). There is evidence suggesting that family involvement creates an identity which is unique to family firms allowing family-owned companies to leverage a valuable idiosyncratic resource: the family nature of the firm (Zanon et al., 2019). An increasing number of family firms communicate their "family nature" due to the importance of online interactions between firms and consumers (Dos Santos et al., 2019). Effectively communicating family firms' identity through digital platforms helps capitalizing on the family ties by improving the trust advantage and loyalty of the consumers and increases the intention to buy with regard to the products offered by family firms. Against this background, this paper aims at answering two specific research questions:

RQ 1 Are family firms able to engage consumers in a digital environment according to the extant literature?

RQ 2 In the light of the rise of new digital environments and the shift in generational cohorts, what are the most promising future lines of research?

To answer our research questions, we first leveraged a bibliometric analysis and to map the extant literature and analyse its evolution (Kraus et al., 2020). Second, we conducted a systematic literature review (SLR), leveraging axial coding techniques to merge labels and concepts (Webster and Watson, 2002), to identify current research areas and possible future research lines. The content analysis of the SLR is provided by dividing the topic into two sections: a) consumers' perception of Family Firms; b) building the "familiness" of the firm. The first section intends to discuss the perception of family firms from an exogenous perspective (i.e. the consumers' perspective) in a digital environment, highlighting the associations that consumers make and the category-based beliefs that they have on family firms in the online channel. The second section examines, from an endogenous perspective (i.e. the Family Firm), if and how Family Firms promote their "familiness" and how the marketing efforts (i.e. the means by which an organization attempts to inform, persuade, and remind consumers about their brand(s)) are communicated in the online channel.

This paper contributes to the extant literature by putting forward the following theoretical implications. First, it provides a state of the art of the literature on family business as well as marketing research by furthering our understanding of the intertwining between Family Firm characteristics and their promotion in the online channel (Andreini et al., 2020; Erkan and Evans, 2016; Ha, 2004; Vijayasarathy and Jones, 2001), proposing new domains of analysis on the effect on consumers' behaviour. Second, the study adds to the body of literature on brand management research in the domain of Family Firms, proposing that, in the online environment where consumers cannot directly touch, taste or feel the intrinsic characteristics of the products they are purchasing, rely on other metrics to judge the product or service. In this context consumers are more willing to engage in long-term relationships with family firms as they ascribe attributes like trust, integrity, honesty, and reliability to family firms. Third, the paper constitutes a guideline for conducting future research, for example on the intersection between these two phenomena in the context of family businesses' heterogeneity (e.g. age, size, and governance structures) and the impact on consumer perceptions and their responses. Also, this SLR shall be helpful for practitioners and entrepreneurs who might face challenges in establishing effective branding strategies and might want to deepen their understanding on how to communicate the family component of their firms in a digital environment to yield an advantage over competitors.

Keywords: Family Firms; Consumer Behaviour; Online Channel; Consumption Behavior; Familiness.

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CIRCULAR BUSINESS MODELS AND THEIR SYSTEMIC IMPLICATIONS: THE “TOO GOOD TO GO” CASE STUDY

De Bernardi, Paola¹; Forliano, Canio²; Gnoffo, Salvatore²; Bertello, Alberto¹

¹Department of Management, University of Turin, Torino, Italy

²Department of Political Science and International Relations, University of Palermo, Palermo, Italy

ABSTRACT

BACKGROUND AND RESEARCH GAP

Circular Economy (CE) has been emerging in the business landscape as a new sustainable paradigm to overcome the linear model of economic growth (i.e., take-make-dispose) by reconceptualising waste as a resource through the implementation of CE practices (Perey *et al.*, 2018) and by substituting the end-of-life notion with restoration and closed-loop product life-cycles (Camacho-Otero *et al.*, 2018; Sassanelli *et al.*, 2019).

The transition towards CE requires firms to significantly re-design their business models around new ways of creating, delivering, and capturing value (Urbinati *et al.*, 2017; Kjaer *et al.*, 2019; Shams *et al.*, 2021; Del Vecchio *et al.*, 2021) in order to contribute achieving the three Ps of sustainability (or triple bottom line): “people, planet, and profit” (Elkington, 1997). Previous studies have investigated circular business models (CBMs) from several perspectives. More specifically, scholars have focused on the enablers and barriers for the design of CBMs (for a review, see Urbinati *et al.*, 2021), the role of specific actors such as customers in enhancing CE (Mostaghel & Chirumalla, 2021), the interplay between CE and emerging technologies (Massaro *et al.*, 2020), and performance measurement indicators (Kristensen & Mosgaard, 2020). At the same time, studies have also recognised that profound changes in CBMs require a proactive multi-stakeholder engagement across a broad ecosystem of actors (Pieroni *et al.*, 2019) so that suppliers and customer collaborate to reduce food waste along the supply chain, universities and research centres contribute to co-develop new technologies and innovative solutions, and local and national governments’ promote policies in support of CE (Frishammar & Parida, 2019; De Bernardi *et al.*, 2020). Although CE depends on inter-organizational relationships within ecosystems encompassing firms, suppliers, customers, universities, research centres, investors, and public authorities (Zucchella & Previtali, 2019), we still have few studies that have adopted a systemic approach to explore CBMs. In other words, circularity is often paradoxically analysed through linear models that do not capture the complexity and dynamicity of inter-organizational cause-and-effect relationships and the possible impacts of circular practices.

PURPOSE

We developed a qualitative system dynamics model to analyse the case study of a food digital platform that develops a CBM against food waste (De Bernardi *et al.*, 2021). Food waste is, in fact, a major concern for the food system in the transition towards a CE (Jurgilevich *et al.*, 2016; Aschemann-Witzel & Peschel, 2019; Zucchella & Previtali, 2019). Food digital platforms can constitute a proper solution to match food provision and demand and to enable transparent transactions between retailers and consumers (De Bernardi *et al.*, 2019). However, we have few insights on the systemic, unintended, and delayed implications of platform-based models for circularity.

METHOD

Leveraging on system thinking principles, we gathered data from interviews with managers of the company and online documentation. In this way, we could develop a system dynamics (SD) model that qualitatively investigates how digital platforms enable circularity and help addressing the triple bottom line (i.e., economic, social, and environmental sustainability). SD is a methodology enabling one to model the cause-effect relationships of complex systems, to simulate the underlying behaviour through computer-based tools, and to test the viability of policies to undertake within a 'safe' virtual environment (Forrester, 1961).

Then, we framed the resulting feedback structure of the interactions between the firm and a broad base of ecosystem actors under an outcome-based dynamic performance management (DPM) viewpoint (Bianchi, 2016), so as to better understand the management processes through which the firm under scrutiny sustainably achieves the main end-results (i.e., outputs and related outcomes), by leveraging relevant critical performance drivers (i.e., intermediate results), in turn activated through the deployment of strategic resources owned.

RESULTS AND IMPLICATIONS

Hence, our study has a twofold aim. First, we capture the complexity of CBMs through a SD model that contributes to exploring the systemic impact of CBMs. Second, we provide empirical evidence of how different actors interact to tackle the food waste issue in the context of a platform-based business model (De Bernardi *et al.*, 2021).

By doing so, we provide three contributions to the literature. We first contribute to CE studies, and, more specifically, CBMs (Geissdoerfer *et al.*, 2020). Although the aim of the CE paradigm is to close loops and think systemically, most of the studies that have analysed CE and CBMs have adopted a

linear perspective. Therefore, we propose a DPM chart, supported by a qualitative SD model, to capture the complexity and the systemic implications of business models that are based on circularity.

We also contribute to the literature on platform-based models in the food sector by investigating the case study of a platform that operates to reduce food waste. Indeed, food waste is an increasingly concerning issue not only for the environmental damages it causes but also for the societal damages and the economic losses that are generated (De Bernardi *et al.*, 2021).

Finally, we provide some useful preliminary insights on how resource accumulations and system delays stemming from the CBM here proposed impact on CE processes. The representativeness of the case-study selected (Yin, 2018) allowed the researchers to make relevant generalisations on business value creation according to the broader triple-bottom-line perspective.

Keywords: circular, business model, sustainability, system dynamics, food

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MATERIAL FLOW COST ACCOUNTING IN THE FOOD LOSS AND WASTE SYSTEM

Bux, Christian¹; Fiore, Mariantonietta²; Amicarelli, Vera¹

¹Department of Economics, Management and Business Law, University of Bari, Bari, Italy

²Department of Economics, University of Foggia, Foggia, Italy

ABSTRACT

The material flow cost accounting (MFCA) represents an interesting management tool to identify inefficiencies along the entire food supply chain, from upstream stages to downstream ones. The MFCA, standardized by the ISO14051, has been defined as an instrument to trace and quantify flows and stock of materials within a certain organization in physical units (e.g., mass, volume), as well as the costs associated with those material and flows under investigation (Jasch, 2009; ISO, 2011). Then, compared to conventional cost accounting tools, it highlights energy, material and other overhead costs (such as CO₂ emissions) associated with consumed or wasted resources, allowing a suitable quantification/qualification of either *explicit* or *hidden* cost flows. The aim of the research is to apply the MFCA to the “food loss and waste system” (Figure 1) trying to answer to the question: Is the MFCA an appropriate tool to improve food waste management along the whole food supply chain?

The present research estimates ecological and economics impacts of food loss and waste along the food supply chain, considering that more than 1.3 billion tons of still edible food are wasted along the entire supply chain (Caldeira et al., 2019), equal to over 6% of global greenhouse gas emissions (over 3.3 Gigatons of CO₂), more than 250 km³ of blue water loss and 1.4 billion hectares of land use (FAO, 2013, 2019; Poore and Nemecek, 2018). Therefore, the authors investigate the suitability of MFCA results under managerial, theoretical and public authorities’ perspective. As suggested by previous studies (Hendriks et al., 2000; Christ and Burritt, 2017; May and Guenther, 2020), The research applies a systematic approach to investigate the “food loss and waste system”, as follows: (i) definition of the explicit and hidden material flows (i.e., water, energy, transportation emissions); (ii) measurement of positive and negative input and outputs in terms of weight; (iii) measurement of positive and negative input and outputs in terms of costs; and (iv) evaluation of results and interpretation. Assuming a closed economy scenario, it is possible to assess the effectiveness of the methodology towards the achievement of international goals, as well as its adherence to the European Commission Delegated 2019/1597 (OJEU, 2019) proposals, which required food loss and waste measurement along the entire supply chain to be conducted at least every 4 years.

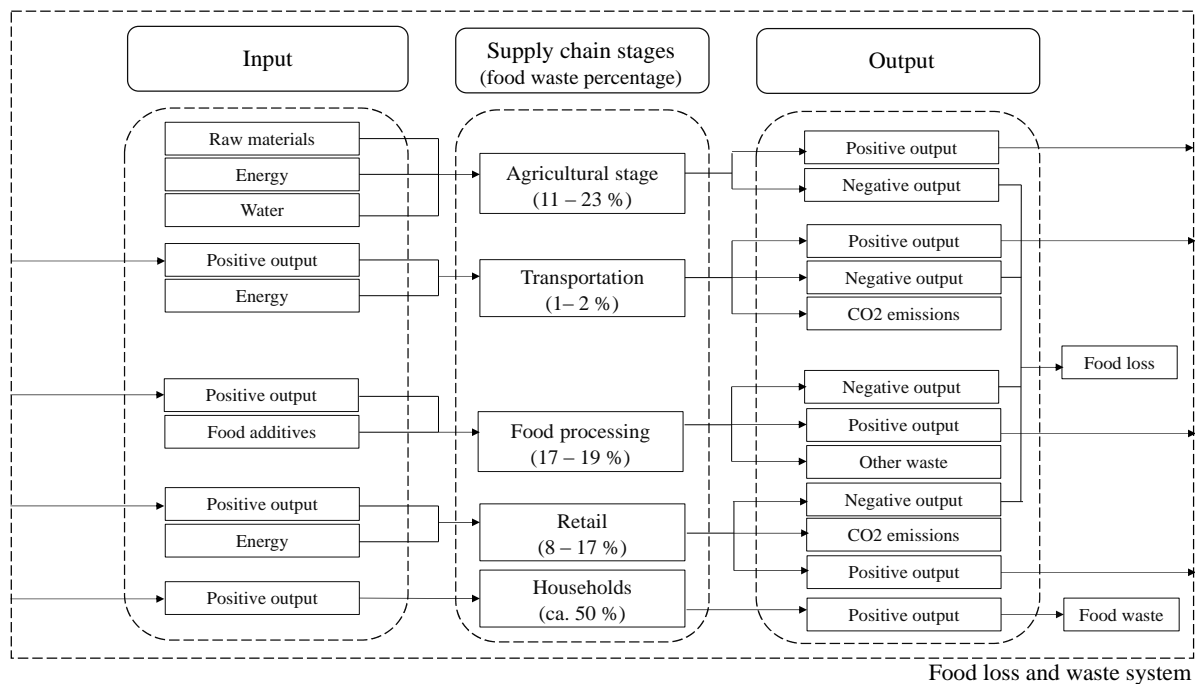


Figure 1 – “Food loss and waste system” diagram

As a result, MFCA could represent a widely transversal tool to define (and graphically display) different information in a systematic, complete and complementary way. It allows the identification of the most critical phases from farm to fork, focusing on either the social (e.g., food security, food availability) or the environmental (e.g., food waste disposal, CO₂ emissions) burdens, but also on the economic (e.g., financial costs, disposal costs) ones, letting businesses operating in a given sector to improve their economic and social performances at the same time. MFCA results identify, along with food loss and waste quantity (in terms of weight), also their economic costs, providing alarming information for farmers, companies and final consumers. Further, MFCA results distinguish between “positive” products and “negative” ones, offering to companies and customers an additional instrument to comprehend and analyze *inefficiencies* in their management. Such results could become a comprehensive and clear communication instrument, for either internal or external companies’ stakeholders, making it more explicit for workforce and consumers to understand associated opportunities for reuse and recycling foods under material and financial perspective. Then, considering the theoretical costs of food loss and waste, businesses can adopt an aware choice among dissimilar disposal alternative (e.g., waste to energy recovery, recycling, landfilling). Last, it can be applied in addition to other measurement tools (e.g., Life Cycle Assessment, Environmental Performance Evaluation), as to better monitor, report and verify financial and environmental issues.

Keywords: food loss; food waste; agri-food management; material flow cost accounting; retail sector; sustainability

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A BIBLIOMETRIC ANALYSIS ON CRYPTOCURRENCY AND CONSUMERS TRUST

Calçada, Eva¹; Sousa, Ana²; Rodrigues, Paula³

¹University of Porto – Department of Mathematics, Faculty of Sciences

²COMEGI (Research Centre in Organizations, Markets and Industrial Management), GOVCOPP, DEGEIT, University of Aveiro, Portugal

³Universidade Lusíada – Norte and BRU-IUL (Business Research Unit – Instituto Universitário de Lisboa)

ABSTRACT

The concept of cryptocurrency has significantly evolved recently, moving from being an unknown topic associated with complex technological innovation to being accepted as an essential part of modern culture. Despite the number of cryptocurrency users has increased in recent times, following the widespread rise of digital payments, several issues remain to be addressed, such as the absence of physical representation of the cryptocurrency or the lack of strict regulations about these currencies to ensure the security of investors' money. Therefore, one of the challenges this business faces is building consumer trust and loyalty (Kaspersky, 2019). Cryptocurrencies (e.g., Bitcoin, Ethereum, and Ripple) are encrypted, with no mediator involved in the transaction, defined as innovative digital currencies supported by cryptography to secure and govern the transactions and supply of digital coins in circulation (Davidson and Naveed, 2013, Morisse, 2015, Narayanan *et al.*, 2016). They rely on three technological elements: blockchain, cryptocurrency wallets, and exchange platforms (Marella *et al.*, 2020). As Arli *et al.* (2021) suggest, the research on cryptocurrencies has been grouped in different categories, namely: (i) the technology itself; (ii) critical thoughts on cryptocurrencies; (iii) economics; (iv) finance; (v) accounting; (v) taxation; and (vi) regulation (Holub and Johnson, 2018). Most of the research about cryptocurrencies has been conducted in the fields of technology and business, and studies dedicated to trust are scarce (Arli *et al.*, 2021). However, an important exception is a study realised by Marella *et al.* (2020), which examined online discussions related to Bitcoin and identified functionality, reliability, and helpfulness as the main constructs. This research aims to conduct a co-citation analysis considering the field of cryptocurrencies and consumer's trust, using the Web of Science database. Furthermore, it helps to understand the intellectual structures that underlie this research topic through the identification of the four major research streams obtained from the co-citation analysis: (1) Technology Adoption, (2) Bitcoin Paradox, (3) Bitcoin Transactions and Anonymity and (4) Blockchain Principles and Applications. In order to collect a sample of publications, we utilized the keywords "cryptocurrency" and ("trust" or "brand") (and the different abbreviations of these terms, their plurals and different ways of spelling), filtering by articles and without any chronological filter. As a consequence of this search, 111 publications were retrieved,

published from 2013 to 2021. Bibexcel software was used to process the bibliometric information from the sample of 111 publications, with references to 5364 sources, and produce the co-citation matrix (Persson *et al.*, 2009). The co-citation data was restricted to the 48 most cited sources (five or more citations), for the purpose of the subsequent factor analysis, with Varimax rotation and Kaiser normalization (Zupic and Čater, 2014), using SPSS software (version 26). The first factor extracted “Technology Adoption” explains 43.8 % of the variance and includes 21 of the 48 references. These publications examine the aspects related to the technology acceptance and use process, emphasizing the perceived usefulness and perceived ease of use as determinant factors of user acceptance (Davis, 1989, Venkatesh *et al.*, 2012, Folkinshteyn and Lennon, 2016). Folkinshteyn and Lennon (2016), use Technology Acceptance Model (TAM) framework in the context of Blockchain technology and Bitcoin. The second factor extracted “Bitcoin Paradox”, including 13 of the 48 references (29.2% of the variance), states Bitcoin as a payment system protected from government or corporate manipulation, through cryptographic protocols, instead regulatory institutions, or interpersonal trust (Maurer *et al.*, 2013). In order to move trust from government and banks to algorithms and encryption software, this currency must be abstained from social life (Dodd, 2018). The third factor “Bitcoin Transactions and Anonymity”, comprising seven references (13.3% of the variance), focus on Bitcoin transactions and their degree of anonymity. This factor covers analysis of Bitcoin’s public transaction history and the issues of the anonymity in this electronic currency system (Meiklejohn *et al.*, 2013, Ron and Shamir, 2013, Reid and Harrigan, 2013). The fourth factor “Blockchain Principles and Applications”, includes four references (3.8% of the variance). Rogers (2003) explains the diffusion process of an innovation and highlight how the Internet transformed the nature of this process, diminishing the importance of people physical proximity. This stream also deals with the potential and the application scenarios of Blockchain technology as a public ledger (Swan, 2015, Tapscott and Tapscott, 2018). The factor 5 and 6 included only two and one publications, respectively, therefore should not be described as individual streams of research. These publications provide the scientific basis of blockchain research and specific cryptocurrencies, like Bitcoin (Nakamoto, 2008, Narayanan *et al.*, 2016, Nakamoto, 2019). The analysis of these factors will contribute to a better understanding of the subject of cryptocurrencies and the main advantages and obstacles to their acceptance by consumers. It will also point out future research lines that may be used in studies about the topic of cryptocurrency and consumers' trust.

Keywords: Bibliometric analysis, Cryptocurrency, Consumer’s trust, User acceptance, Technology

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A DIGITAL SERVICE PLATFORM FOR CONNECTED 2-WHEELERS

Carvalho, A.¹; Elisabete, Sá²; Joaquim, Silva²; Arash, Rezazadeh¹; Maher, Georges Elmashhara¹;
Ricardo, Pessoa³

¹NIPE, School of Economics and Management, University of Minho, Braga, Portugal

²Interdisciplinary Centre of Social Sciences (CICS.NOVA.UMinho), School of Economics and Management University of Minho, Braga, Portugal

³Bosch Car Multimédia Portugal, Braga, Portugal

ABSTRACT

The role of 2-wheelers in urban mobility has grown substantially, especially for their potential to reduce traffic congestion and CO₂ emissions and promote health and wellbeing (Karanikola et al., 2018). In some European cities, cycling counts for almost half the total urban travel. Bicycle sales reflect this. The e-bike market alone is predicted to reach up to 130 million units sold worldwide between 2020 and 2023 (Deloitte, 2019). The "cycling revolution" brought about by the COVID-19 pandemic might accentuate this further.

Sustainable urban mobility is inextricably linked with the concept of the Smart City, which rely on technology and (real-time) data within integrated and interconnected systems to attain more effective and efficient city management and improve the quality of life and services offered to citizens (Karanikola et al., 2018). The connected 2-wheeler urban mobility (C2WUM) ecosystem is made up of a large number of loosely interconnected public and private stakeholders who share an interest in the operation of 2-wheelers in the urban context, including bikers, bike-sharing services, transit operators, municipalities, equipment manufacturers, among others. There are already a variety of digital platforms in the C2WUM context. Bike sharing operators develop their own platforms to connect to customers and manage operations. Equipment manufacturers develop digital platforms to support their bike sensors and gadgets. Social platforms like Strava or Komoot stimulate peer-to-peer interaction and information exchange among bikers. However, all of these platforms involve a restricted set of ecosystem members and value creation potential is also limited.

We envision a *digital service platform* (Janssen and Zuiderwijk, 2014) for the C2WUM ecosystem that is biker-centric, meaning that the urban biker is at the core of a system that allows them to be connected with the context to easily fulfil their needs and wants within a short bike radius, resonating with the concept of the "15-minute city" (Moreno et al., 2021). Data is collected from multiple sources, including (Smart City) infrastructure and bike sensors, other specialist platforms (e.g., maps, weather) and urban stakeholders' own systems (e.g., shared-vehicle operators, public transport, users' own smartphones) via APIs; or through more direct data inputs via apps, forms or other mechanisms. A service integrator (responsible for operating the platform) then processes and repackages this data into diverse formats to

fit the needs of the different ecosystem members so they make better decisions and even amplify their own value propositions. For example, in addition to planning their trips based on accurate information on traffic, the weather, and location and scheduling of other public transport modes, bikers may also receive maintenance and security alerts; receive notifications about places of interest (repair shops or services) and the places they need to reach; and even book and pay for several different services and events around the city. They may connect to the 2-wheeler community and share information, pictures, or recommendations/reviews. Equipment manufacturers and bike repair shops, in turn, can benefit from large-scale information on customer experience and behaviour, as well as technical reports on vehicle malfunction to improve their own products and customer service. Municipalities can make more effective and efficient resource allocation with knowledge about urban mobility patterns and inputs by the citizens about infrastructure or traffic problems. Public transport and bike-sharing operators can employ anonymised and aggregated mobile phone network data (Franco et al., 2020) to predict demand and thus minimise risks and increase financial viability.

An international Delphi study about a C2WUM digital platform is being conducted to discuss aspects of the structure and governance of the associated value constellation, including degree of openness, value creation and value share among members, which have been less explored in the literature (Mukhopadhyay and Bouwman, 2019).

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Keywords: connected 2-wheelers; urban mobility; digital service platform.

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COVID-19 CRISIS MANAGEMENT – BUSINESS PERFORMANCE, CRISIS MANAGEMENT AND BUSINESS CONTINUITY MANAGEMENT STRATEGIES FOR INTERNATIONAL PHARMACEUTICAL COMPANIES

Cherif, Meriam¹; Sanchez Bengoa, Dolores²

¹University of Applied Management Studies, Mannheim Germany and GBS, Tunisia

²University of Applied Management Studies, Mannheim Germany

ABSTRACT

BACKGROUND

Many governments and international companies encountered financial difficulties as a result of the challenges that came with the global pandemic (Tarkiet al., 2020). The COVID-19 crisis has an impact on a wide variety of sectors and in global organizations, and the international pharmaceutical firms are certainly among them. This crisis is causing problems for many executives and top managers of multinational organizations all over the world. Moreover, the pharmaceutical sector has already struggled greatly due to the decrease of healthcare budget caused by the drop in gas and oil prices, which can be attributed at first to the global financial crisis in 2008, accentuated drastically now by the COVID-19 crisis (Coombs & Laufer 2018).

OBJECTIVE

The purpose of this research is to identify new strategies in the pharmaceutical sector to ensure business profitability during any unpredictable situation caused by any type of crisis.

The concept of crisis management refers to all the processes that occur during a crisis (Betta & Owczarzak-Skomra, 2019) as well as the different phases of a crisis, (Fainshmidt, Nair, & Mallon 2017; Zamoum & Gorpe 2018; Doern, Williams & Vorley 2019); utilizing business continuity management as a tool for disaster management. The initial theoretical framework is based on a synthesis of lessons learned from previous crises, a fusion of several perspectives used in crisis management, business continuity management process and Corporate Social Responsibility as mentioned by He & Harris, (2020) as part of a strategy implementation. In addition, the effectiveness of the leadership style in crisis must be integrated (Canyon, 2020) and resiliency are very relevant for this framework (Bryce et al., 2020; Sluss and Powley, 2020).

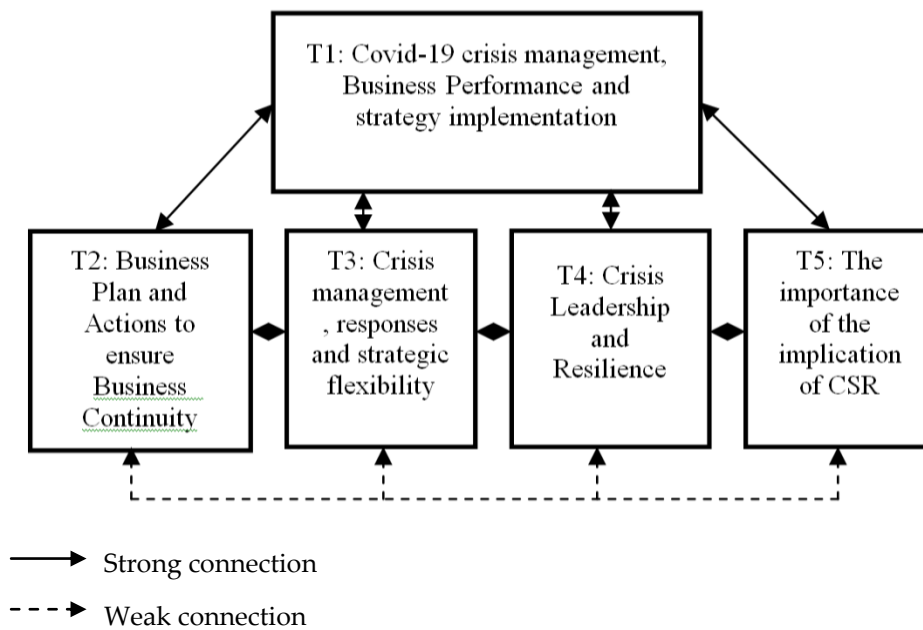
METHODS

The qualitative research method was chosen for this study to investigate and define various perspectives, and strategies used by executives and top managers. The case study was the best choice in this research because it helped the researchers to better explored and understand the information related to the current situation (Motulsky et. al, 2017) and the interpretation of viewpoints and ideas (Argyres et al., 2019). For the semi-structure interviews, the purposeful sample comprised sixteen executives and top managers were chosen. They came from seven multinational pharmaceutical firms' headquartered in Tunisia, Morocco, Switzerland, the United Arab Emirates, France, and the United States who have overcome challenges and sustained business during the Covid-19 and have execution experience. The data analysis was conducted following the principles of content analysis where categories and subcategories were identified.

RESULTS

The main aim is overcoming the current crisis by dealing with a variety of circumstances within the organization to rebuild business and create new strategies to sustain and increase profitability. When examining any organization, the most important factor to consider is how to improve crisis performance and align it with a process. Failure is associated with performance during any exceptional event, particularly in the pharmaceutical industry. As a result of the crisis, business success will be determined by a combination of factors and challenges. In the pharmaceutical industry is the accumulation of several crises, the unexpected problems, and the no adaptable strategies to sustain business during this period. Moreover, it refers to the methods by which businesses coordinate and management of their multinational teams.

Due to their past experience dealing with crisis, all of the participants were able to handle the company and maintain stability during the pandemic. Furthermore, the manner in which they shared their knowledge and leadership styles about their success demonstrated their personalities and strategies for overcoming the pandemic. Five major categories emerged from the responses. During the interviews, participants discussed a variety of topics, including business success and plan execution during the Covid-19 timeframe, as well as, how to keep a business going and ensure profits. The findings identified the main strategies, procedures, processes, and preventions that should be considered in order to maintain profitability and sustainability within multinational pharmaceutical companies during the Covid-19 crisis.



This study argues that companies should enhance the role of CSR to avoid crisis and disasters issues. CSR can play a big role in the future to prevent crisis and disasters from happening and maintain a healthy business environment. Also, implicate CSR in regulations and authorities to reduce issues then focus on innovation because debate corporate governance is still one of the big challenges for international pharmaceutical companies after this economic shock. This field remains underdeveloped and needs to be used within the international pharmaceutical companies. It is time to implement team management and mixed departments to manage crisis response, action plans, BCP and BCM because there is no fusion between all the perspectives, approaches and processes. Crisis and disaster management is a now process.

CONCLUSION

During these difficult times, the future of the business is uncertain. Managing business during the Covid-19 crisis seems like an impossible mission. The findings show that within the international pharmaceutical companies, the situation was quite different, and that was because of many factors unfolding: the organizational culture, the motivation, the engagement, the crisis' experience of the managers and the qualification of the employees were the first key success factors to ensure good business performance and strategies. The pharmaceutical industry is referred as a VUCA market in an unpredictable environment because it is affected by a variety of elements, including the economy, governmental regulations, and authorities, political circumstances and, at the same time, stakeholders and customer behavior. The world is changing so fast and organizations should adapt to this. Developing strategies urgently is crucial to adapt to a world with growing uncertainty.

Keywords: covid-19 crisis, emergency response, crisis through time of uncertainty, crisis management, crisis management plan, business performance strategies, business continuity strategies, business continuity management and plan, Resilience, CSR.

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ARE FARMER'S MARKET CONSUMERS WILLING TO PAY A PREMIUM PRICE FOR LOCAL FOODS DELIVERED WITH E-VEHICLES?

Concialdi, Paola; Crescimanno, Maria; Galati, Antonino

Department of Agricultural, Food and Forest Sciences, University of Palermo, Palermo, Italy

ABSTRACT

RESEARCH BACKGROUND AND AIM OF THE STUDY

Since 1990, global emissions increased almost 50% (UN, 2015). The transport sector is one of the main responsible for greenhouse gas emissions. This has led to a growing attention of Institutions, starting from the United Nation's Earth Summit in 1992, towards the sustainability of the transport sector, up to the inclusion of a specific objective in the 2030 Agenda for Sustainable Development (UN, 2015). Likewise, the European Union is developing policies aimed to reduce the environmental impact of the transport sector promoting, among other measures, the electric mobility (COM (2019) 640 final). The attention towards the environmental impact of the transport system is growing as emerges by the demand of Electric Vehicles (EVs) both in private and public sectors (IKEA, 2020; ITF, 2020), and by the number of articles published in recent years focused on this topic (Pathak *et al.*, 2021; Zhang *et al.*, 2019; Quak *et al.*, 2016; Schniederjans and Starke 2014). However, a topic little explored to date is related to the opportunity to introduce EVs in the Short Food Supply Chain (SFSC) in particular. In this transition process toward clean energy using consumers could play a key role in stimulating the adoption of sustainable and innovative solutions among companies. In this context, consumers are very careful and responsible when purchasing products, especially agri-food (Landis *et al.*, 2010; Migliore *et al.*, 2015; Giampietri *et al.*, 2018). Empirical evidence reveal that consumers pay more and more attention to the place of production, the practices adopted, the limited use or absence of chemicals (Küster, *et al.*, 2019; Printezis and Grebitus, 2020). In line with this, they prefer alternative food channels, close to their high quality and sustainability expectations. SFSC and particularly Farmers' Markets (FMs) try to respond to these expectations creating a trust direct relationship consumers-farmers (Marsden *et al.*, 2002). However, if on the one hand foods sold in FMs are sustainable, on the other hand, is not sure if the transport system is too (Giacomarra *et al.*, 2019). In fact, in most cases, the transport of agri-food products takes place with old and non-ecological vehicles. In this sense, the adoption of Electric Freight Vehicles (EFVs) is a challenge to reduce the environmental impact of food delivery.

This study aims to analyse the Willingness to Pay(WTP) of consumers participating in FMs for foods delivered by using EFVs in order to verify the opportunity of farmers to introduce EVs as a transport

mode. This study enriches the economic literature on the sustainable transport systems in the agri-food supply chain by using the WTP of consumers as an indicator to assess the consumers' propensity to pay a premium price for food transported with EVs.

METHODOLOGY

Empirical data will be collected in the Sicilian FMs by using a questionnaire organized in five-sections. The first section contains information related to the frequency of FMs visiting as well as sustainable food consumption and purchase habit information. The second section was dedicated to elicit WTP for foods delivered by using EVs using close-ended dichotomous questions (with "yes"/"no" response). In the third section, was investigated a set of food label information using a Likert scale ranging from 1 to 5 (strongly disagree=1, disagree=2 neutral=3, agree =4, strongly agree=5). In the fourth section, information on the main factors influencing consumer attitudes towards environment were investigated by using the Theory of Planned Behaviour (TPB) (Ajzen, 1991) and on the New Environmental Paradigm attitudinal scale (Dunlap *et al.*, 2000). The end section included participant sociodemographic indicators, such as age, gender, household members number, education, and monthly net income in euros.

Data collected will be analysed with an ordered logistic regression model (Cameron and Trivedi, 2005).

EXPECTED RESULTS AND IMPLICATIONS

The present study aims to investigate the consumers WTP for agri-food freight transportation by using EVs. In line with the market trend we expect that consumers are willing to pay a premium price for sustainable products, like organic products, and practices aimed to reduce the environmental impact. The previous studies demonstrated that consumers participating in the FMs are willing to pay a premium price for local foods and that this behaviour is explained by the several factors related to pro-environmental behaviour, and other socio-cultural characteristics. Knowing the WTP of consumers is important because it could represent an input for farmers participating in farmer markets to invest in eco-friendly transport systems. This innovation starting with the introduction by individual farmers could contribute to changing the entire agricultural food distribution in favour of more sustainable solutions.

Our findings besides to enrich the current literature on sustainable supply chain management could have theoretical, managerial and policy implications. From on theoretical point of view, we would like to assess the goodness of the TPB and NEP approaches to investigate the behaviour of consumers toward green mobility. On the managerial point of view, taking into account the knowledge of the

consumers' WTP for agri-food products delivered by using EVs could encourage farmers to seriously consider the possibility to introduce it in their business. Switching to political implications, policymakers should consider in their political planning measures able to concretize a more effective transport system de-carbonization. However, this study shows several limitations related to the sample studied and the geographical contest analysed that do not allow the generalization of the results.

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THE ROLE OF DIGITALIZATION IN RURAL AREAS' RESILIENCE TO COVID-19: LIVERUR CASE STUDY

Costa, Ettore; Mazaj, Jelena; Impastato, Caterina

Higher Education and Research Unit. CESIE, Palermo, Italy

ABSTRACT

FRAMING THE ISSUE

The Covid-19 pandemic and the response measures put in place to limit its dreadful health and wellbeing implications undoubtedly exposed a wide range of business sectors to unexpected change. In management literature this change is called an exogenous shock, which stimulates diverse dynamics within the society and on the market, requesting for business model's upgrade to respond to environmental changes (Martins *et al.*, 2015). Moreover, this outbreak has also generated a widespread uptake of digital solution in many industries which had to reconfigure their internal processes, human resource management practices, workflow and workforce relations, sales channels, and so forth. Depending on the main economic activity, businesses and enterprises had to intervene in their business model wherever possible, reworking it to suit the new conditions: internet-based industries thrive while those serving their customer only on a face-to-face basis are in danger of going out of business (Donthu and Gustafsson, 2020).

Aside from drastically impacting both businesses and customers' behaviors, the pandemic also exposed the many weaknesses and the need for transversal resilience-based policy-making. One year of resilience actions applied to overhead Covid-19's impact demonstrate that digitalization and ICT-based solutions have played a key role in business and customers' behavioral change. However, Faraj *et al.* (2021) also point out the many issues and critical factors this sudden shift to digital technology brought along, among these: access to digital technology and infrastructures.

In view to address infrastructural and access related issues, and in line with the newly acquired global consciousness on the role of digitalization for sustainable development and innovation (Adamowicz and Zwolińska-Ligaj, 2020; Péter, 2020; Bacco *et al.*, 2019) the European Union recently presented its vision for Europe's digital transformation by 2030, which is an ambitious plan acting on four main elements: governance, skills, infrastructures, and businesses (European Commission, 2021). The European Union states that the Covid-19 pandemic "has radically changed the role and perception of digitalization in our societies and economies, and accelerated its pace" (European Commission, 2021, p.1). Following the resilience plan diverse policy actions were presented and adopted by local governments, and implemented by local actors, including the rural sector.

Framed by the previously mentioned incidents, rural areas tend to lag behind when it comes down to digitalization and deployment of ICT-based solutions mainly due to the lack of data infrastructures and the ever-growing digital gap between rural and urban areas. Also, the lack of digital skills of rural citizens compared to urban citizens plays a role in this disparity (Salemink *et al.*, 2017). Nevertheless, the digitalization of rural areas brings with it a massive potential for revolutionizing the role rural areas play in economic and social terms, as well as building the foundations for the flourishing of their local communities which are often struggling with depopulation, ageing, and economic stagnation (Zavratnik *et al.*, 2018; Navarro Valverde, 2019).

AIM OF THE RESEARCH

The present research aims to assess the impact rural areas based business models endured during the Covid-19 outbreak and, more specifically, explore the array of ICT-based solutions deployed by rural businesses depending on the sector they operate in. As such, the research explores the challenges and opportunities rural businesses have identified as a direct or indirect effect of Covid-19 induced behavioural change and digital solution deployment. Finally, we structure a platform for the academic research agenda for this area.

METHODOLOGY

This research builds upon the work done by the Horizon 2020 LIVERUR – Living Lab research concept in rural areas project (No. 773757). The project aims to unlock innovation potential of the rural areas by deploying the living lab approach with local stakeholders and businesses to innovate their business model, focusing on the circular economy, sustainability, and innovation. The project's Deliverable 2.3 "Report on identified weaknesses and challenges" (LIVERUR, 2018) and the data gathering process offers us a clear picture of the challenges and weaknesses rural businesses face in the project's 12 pilot regions: Austria, Azores islands, Czech Republic, Italy, Latvia, Malta, Slovenia, South of France, Spain, Tunisia, Turkey, and West of France. The knowledge gathered and analyzed by the deliverable serves as the baseline for the second set of data gathering activities applying a qualitative research method, such as, interviews with the pilots' stakeholders. The additional data gathered completes the picture of those already presented by the D2.3 report, allowing to come forward with sector-specific impact assessments of rural businesses. In doing so the role of digitalization-based solutions and the obstacles faced by rural business in deploying them are addressed.

EXPECTED CONTRIBUTIONS

This paper offers research knowledge on understanding the challenges and weaknesses of rural areas linked to the use of digital technologies within the exogenous shock. Also, it provides a comparison of the business models' adaptation principles and organizational strategies deployed by pilots, as well as the reasons behind their deployment. This work provides a potential contribution in informing the design of a rural digitalization pathway that works for rural areas' needs, actively seeking local stakeholders' input and participation in the digitalization process. Finally, we provide a future research agenda for scholars interested in analysis of the digitalization impact on rural areas.

Keywords: Business model, Covid-19, Digitalization, Rural areas

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CORPORATE SOCIAL PERFORMANCE AND SURVIVORSHIP ON THE EUROPEAN HOTEL INDUSTRY: THE PANDEMIC EFFECT

Dimitropoulos, Panagiotis¹; Koronios, Konstantinos²; Ntasis, Lazaros³

¹Department of Sport Organization and Management, University of Peloponnese, Sparta, Greece, and School of Social Sciences, Hellenic Open University, Patra, Greece.

²Department of Accounting and Finance, University of Peloponnese, Kalamata, Greece.

³Department of Economics, University of Peloponnese, Tripoli, Greece.

ABSTRACT

INTRODUCTION

The recent COVID_19 pandemic brought a severe disruption on international economic activity practically throughout most economic sectors, and practically transformed the conduct of business practices. The hotel sector (and tourism industry in general) was one of the sectors which faced a significant downturn on their revenues, customer bases and viability since travels were restricted for a long period of time (Bonfanti et al., 2021; Hao et al., 2020). The scope of this study is to examine the impact of the recent pandemic (as an exogenous shock) to the default risk of European hotel firms and how social performance assisted towards alleviating the negative impact of the COVID shock on firms' viability.

Practically the study tries to answer the following research question: Does social performance contribute towards default risk reduction during a period of exogenous economic shocks? This study adds to the growing literature on the intersection of CSR and default risk on the hotel industry on several merits. At first, we move beyond the existing studies on CSR reporting which consider indexes based on websites information (Khatter et al., 2019; Kang and Hahn, 2017). We incorporated an analytical database of CSR performance comprised from several public sources. We also compare several CSR dimensions prior and after the pandemic and their impact on default risk and firm's survivability (Lee, 2020). Finally, we examined a multi-country setting not evidenced in previous literature.

DATA AND RESEARCH DESIGN

The study selected an unbalanced sample of 332 hotel corporations operating in the European continent over the period 2018-2020. Specifically, we collected data on hotels, motels and cruise ship corporations from 34 countries summing up to 997 firm-year observations. The sample included social performance scores as well as financial accounting data extracted from Datastream database. Distress risk is proxied

via the Altman's Z-score. Firms with at least two consecutive annual observations were included in the sample. Panel data analysis was conducted on financial and social responsibility performance data for the period under study. Panel data was selected as the proper estimation methods since our data are structured in panel form, so it allows us to make efficient estimations of coefficients capturing both the cross-sectional and time-series dimension of the data. The fixed effect panel regression model has the following functional form:

$$Z\text{-Score}_{it} = a_0 + a_1CSR_{it} + a_2COVI_D_{it} + a_3COVI_D_{it}*CSR_{it} + bCONTROLS_{it} + e_{it} \quad (1)$$

Where, Z-score is the Altman's Z-Score indicating the default risk of the firm, CSR is the annual social pillar performance score ranging from one to 100, COVI_D is a dummy receiving (1) for the fiscal year 2020 and (0) for the previous years, CONTROLS is a vector of control variables impacting default risk which are, firm size (SIZE) measured as the natural logarithm of total assets, leverage (LEV) which is the ratio of total debt to total assets, ROA captures profitability and is measured as the ratio of net income to total assets, GROWTH captures the annual sales growth and CFO is the ratio of operating cash flows to total assets.

EMPIRICAL RESULTS

Table 1 presents the results from the estimation of model (1). As we can see, the interaction of COVI_D and CSR produced a positive and highly significant coefficient indicating that hotel firms which sustained (or even enhanced) their social performance during the pandemic improved their viability, measured by a larger Z-score. Practically, a one point increase of CSR score during the pandemic increase Z-score by two per cent. All control variables (except SIZE) produced significant coefficients with the expected sign.

Table 1: Panel fixed effect regression results

Variables	Coefficients	T-test	P-value
CSR	-0.012**	-4.80	0.001
COVI_D	-0.008*	-2.14	0.035
COVI_D*CSR	0.022**	3.28	0.001
SIZE	0.050	1.26	0.207
LEV	-4.862**	-20.30	0.001
ROA	10.324**	19.17	0.001
GROWTH	0.253*	2.16	0.031
CFO	6.604**	8.54	0.001
F-stat	346.70** (P-value 0.001)		
R2	0.708		

Note: **, * indicate statistical significance at the 1% and 5% significance level respectively.

DISCUSSION AND CONCLUSION

Empirical evidence revealed that firms with higher social performance scores during the pandemic period of 2020 achieved increased levels of viability (less default risk) relative to the period before the COVID-19. Practically, firms with enhanced social performance were associated with reduced Altman Z-score, indicating higher viability in 2020. This finding suggests that focus and investment on social protection projects during periods of crisis could help firms to survive and preserve their existence in the market. This is the first multi-country study which provides direct evidence on the contribution of corporate sustainability (CSR performance) on corporate default risk, during a period of an exogenous economic shock.

The results have significant implications for managers and investors. Managers can use our findings as a guide on the advantages of CSR performance on firms' viability especially during troubled times. The uninterrupted devotion of resources towards social concerns could yield important benefits in terms of viability. Also, investors could have in mind that social performance is not a waste of resources, but it can secure their investments during periods of financial turmoil. Future studies can replicate the research design of this paper by utilizing a larger dataset and over a longer period. Also, it will be interesting to examine the impact of social and environmental performance on the financial performance of European hotels and how the pandemic impacted that association.

Keywords: CSR performance, Environmental responsibility performance, Default risk, Hotel firms, Europe, Pandemic, COVID-19.

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ANOMALY DETECTION PREDICTION-BASED USING FORECASTS COMBINATIONS WITH APPLICATION TO PANIC BUYING DUE TO COVID- 19 IN ITALY

Drago, Carlo

University Niccolò Cusano, Rome, Italy and NCI University, London

ABSTRACT

Panic buying was a very relevant social effect and a phenomenon known in the COVID-19 crisis worldwide. Anxiety over one's health and seeing other individuals panic purchase were associated with panic purchasing behavior (David et al., 2021). Stockout situations are often determined by panic purchasing, typical herd behavior (Yuen et al. 2020 and Brugarolas et al. 2020). The phenomenon is socially problematic and gives the typical results on a massive amount of basic needs (for instance, foods) and medical supplies being bought from marketplaces (Yuen et al. 2020). The panic buying also appears in Italy, in which the lockdown restrictions were considered one of the most severe closure plans in the Western world (Cavallo et al., 2020). The identification of panic buying is necessary (Loxton et al. 2020), and it is on the emergencies very relevant to reduce possible social damages. In this respect, it is crucial to provide approaches applicable to prevention. In this sense, anomaly detection approaches on time series are fundamental to identify anomalies in these contexts (see Chandola et al. 2009 for anomaly detection and Cheboli 2010 on time series). In this sense, the relevant research question is to set a system of helpful anomaly detection to prevent these situations of panic buying and alert the policy-maker quickly. The proposed approach is based on forecasts combining different approaches. In this sense, we will consider different forecasting methodologies (Autoregressive neural networks, ETS, ARIMA, and cubic splines forecasts see in this respect Hyndman and, Khandakar 2008 Drago and Massa 2019 and Drago 2018 for an anomaly detection approach based on interval observations). Finally, we apply a forecasting combinations methodology applicable to identifying anomalies over time. The anomaly detection-prediction based can have relevant policy implications. The application of the approach is related to the Italian case in which we have observed some phenomena of panic buying in March 2020 related to food (in particular grocery stores and supermarkets). In order to evaluate the existence of panic buying and anticipate them, we consider Google Trends data (Google 2021), which allows us to identify and anticipate the intention to buy. So we have collected the data (query: "Alimentari" as grocery stores in Italian for the period 2004 to 28/6/2021). We considered the forecasting approach iteratively over time, identifying March and April 2020 anomalous search volumes that allow anticipating eventual panic buying phenomena (see Varian

and Choi 2008 on the anticipation of the economic activity using Google queries data and Jun et al. 2018 and also Chua et al. 2021).

Keywords: Panic Buying, Buying behavior, Buying patterns, COVID-19, Behavioural Economics, Anomaly Detection, Anomaly Detection prediction based, Forecasting, Forecasts Combinations, Autoregressive Neural Networks

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COMPLEXITY OF THE TAX SYSTEM: CONTEMPORARY REASONS, CAUSES AND TREATMENTS

Drogalas, George¹; Karagiorgos, A.²; Lazos, Grigoris³; Lois, Petros²; Kasiouli, Maria⁴

¹Department of Business Administration, University of Macedonia, Greece

²Department of Accounting, School of Business, University of Nicosia, Cyprus

³Department of Economics, International University of Greece, Greece

⁴University of Macedonia, Greece

ABSTRACT

The volume and difficulty of interpreting tax provisions, procedures and obligations generate a complex taxation system. Tax complications lie at operational levels and have roots in the reflection of state and international legislation to a tax system as well as the interpretation and reception from tax payers. Traditional causes of complexity are found in public central planning and political instability. The introduction of e-government and tax provisions aimed at tax system modernizations with international practices further complicated the situation. The complexity arouses dissatisfaction on the part of both institutions and citizens, while the usual response measures seem insufficient. This paper through a questionnaire gathers data from taxation related private or public employees and taxpayers. With factor analysis the items generated the most important factors of complexity. The main causes of complexity stem from the administration, the information systems used, the tax framework and the shaped tax conscience. These factors can

Keywords: Taxation, Complexity, Tax systems, Information Systems

NON-COGNITIVE PERSONAL CHARACTERISTICS: PRACTICES OF THEIR INFLUENCE ON VOLUNTARY TURNOVER

Fokeev, Maxim¹; Ruzhanskaya, Liudmila²; Volchenko, Tatiana¹

¹Graduate School of Business, Higher School of Economics, Moscow, Russia

²Graduate School of Economics and management, Ural Federal University, Yekaterinburg, Russia

ABSTRACT

The majority of employers face staff turnover. In this perspective, more than 70% of HR-managers said, that problems, related to voluntary turnover are the most difficult for them (Kabalina, Mondrus, 2018). In accordance with it, issues of labor behavior attract research attention, where a significant part of publications considers the reasons (factors) for the formation of intentions for voluntary dismissal.

To assess the likelihood of employee turnover, most authors applied to commitment and satisfaction, which include factors related to the working conditions like the most significant variables. In the same time, it is reasonable to assume that the formation of intentions and the fact of voluntary turnover is associated not only with work characteristics, but also with some personal characteristics of the employee - non-cognitive personality parameters that have received less attention in the research literature. In this regard, the purpose of the study is to assess the impact of personal (non-cognitive) characteristics of an employee on his voluntary dismissal.

There are different models of non-cognitive characteristics: the 16-factor model of Cattell (Cattell, 1956), the typology of the «Big Seven» (Almagor *et al.*, 1995), the «Big Three» (Eysenck, 1997) and, finally, the «Big Five» – «Big Five» (McCrae and Costa, 1997), which among these options received the most research attention (Goldberg, 1981). The «Big Five» includes a set of five characteristics can be used to describe a portrait of a person: extroversion, benevolence, conscientiousness, emotional stability (neuroticism), openness to new experiences.

At the same time, articles review lead to contradictory results (Barrick and Mount, 1998; Salgado, 2002; Zimmerman, 2008; Savelyev and Tan, 2019). For example, the correlation coefficients of emotional stability and conscientiousness with voluntary change of company were 0.02 and 0.12, respectively (Barrick and Mount, 1991). Openness to experience and emotional stability are associated with dismissal at the levels of -0.14 and -0.35 (Salgado, 2002). Other publications in an attempt to avoid conflicting results link the parameters of the "Big five" with job satisfaction in speaking of their mediation effect on the dismissal (Judge and Bono, 2001).

Based on the incoming survey of candidates for employment in JSC «Sheremetyevo International Airport» in 2019, which based on 28 questions divided into five blocks, we measured the level of «Big Five» characteristics development. Respondents displayed on the Likert scale degree of

agreement/disagreement with statements. In accordance with the criteria of the general population (portraits of employees), we determined the required number of respondents - 203 people. Then, in 2020, for each respondents we checked his labor status in airport: work or dismissal.

According to descriptive statistics, 30% of employees changed their company in the first year after employment. Young employees (up to 41 years old) are most likely to change company, which in the context of non-cognitive characteristics can be associated with their activity, openness to new experiences, and self-effectiveness. Consideration of the most likely turnover age group, depending on the field of professional activity, we showed that employees of the «Specialist» category and non-aviation field of activity are most likely to turnover, because wide types of alternative job opportunities. To assess the direction and the strength of non-cognitive factors influence, we constructed an econometric probit-model of binary choice, where the dependent variable was the fact of turnover during the first year of employment, and the independent variables were the non – cognitive and socio-demographic characteristics. The results of the evaluation summarized in Table 1.

Table 1 – Results of econometric modelling

Factor	(1)	(2)	(3)
	Base	Interaction eff. 1	Interaction eff. 2
Sex	.007 / (.008)	.007 / (.008)	.005 / (.002)
Industry		.372 / (.031)*	.044* / (.031)
OrgLevel	.840 / (.027)		
Family	-.147 / (-.04)*	-.147 / (-.04)*	-.216 / (-.071)
WorkExp	.001 / (.001)		
Age^2	-.000 / (-.002)*	-.000 / (-.002)*	-.086 / (.041)
Lokus	.131 / (.040)	.128 / (.056)	
SamoEff	.015 / (.001)	.008 / (.000)	
Lokus_x_SamoEff			.343* / (.113)
Salary1	-.129 / (.040)*	-.102 / (.036)**	-.137** / (.046)
TipMishlen	.129 / (.040)*		.130* / (.044)
TipMishlen_x_ExtrIntroverts		.037 / (.002)	
ExtrIntroverts	.173 / (.059)		.182 / (.062)
Obs.	243	243	243
Pseudo R2	.155	.162	.178

According to the results, at the 5% significance level, the probability of a voluntary turnover affected by comparable wages to external labor market. The voluntary turnover probability will increase by 4.6%. In addition, an employee belonging to the office staff increases the probability of voluntary turnover by 3.1%. For a set of non-cognitive parameters, the assumptions about their weak connection with the voluntary turnover, in particular, the locus of control and self-efficacy, were confirmed. However, their significant impact was noted in the calculation of interaction effects, which at the 10% significance level showed a direct impact of the internal locus of control and high self-efficacy values on the voluntary change of the company. If these two parameters are higher, the probability of a voluntary turnover

increases by 11.3%. In addition, rational-oriented behavior increases the probability of a voluntary turnover by 4.4%.

The study allowed us to continue the discussion about the influence of non-cognitive characteristics on voluntary turnover. Based on the assessment of Sheremetyevo Airport employees, we were able to note the different impact of non-cognitive characteristics for different groups of employees within the same organization. From a practical point of view, the results of the study can serve as a basis for the development of more flexible and personalized human resource management practices in the company. These practices should be aimed at the preservation and development of employees, which is one of the most important predictors of future labor behavior. In addition, the practical applicability of the results demonstrates the importance of developing non-cognitive skills of employees, and those that will be significant for a certain labor role in the company. The construction of such role portraits is possible based on the incoming assessment of candidates for employment.

From a theoretical point of view, the study, on the one hand, serves as a continuation of the discussion about the strength and direction of the influence of non-cognitive characteristics, and considering them from the position of influence on voluntary dismissal. On the other hand, for the first time, using the unique data of a Russian company (which has a number of specific characteristics), it is testing the applicability of voluntary termination models. The theoretical significance is associated with the first collection of data on voluntary dismissal and non-cognitive characteristics of Russian employees for the Russian business context. Some of the previous works on this topic relied more on secondary and indirect data or considered only individual elements of the "big five".

In general, further research development may be associated with the expansion of the empirical framework, both towards companies in other sectors of the economy, and those personnel changes that will be considered (for example, horizontal or vertical movements in the company).

Keywords: non-cognitive characteristics; labor market; factors of dismissal; "big five"; human capital; employee retention.

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TRACKING DEFAULT RISK IN FINTECH PAYMENTS: A CASE STUDY ON ONLINE INVOICE TRADING MARKET

Giannotti, Claudio¹; Gibilaro, Lucia¹; Mattarocci, Gianluca²; Mihai-Yiannaki, Simona³;

¹Department of Law, Economics, Politics and Modern languages, University LUMSA, Rome, Italy

²Department of Management and Law, University of Rome Tor Vergata, Rome, Italy

³Department of Accounting, Economics, and Finance, European University of Cyprus, Nicosia, Cyprus

ABSTRACT

CONTEXT OF THE RESEARCH

SMEs are suffering of a lack of financing resources available for supporting their business and the demand of services offered by Fintech is growing due to the lower constraints applied by these players in selecting borrowers with respect to traditional lenders. The type of loans offered to these borrowers are frequently asset based lending financial solutions in which the fintech company may reduce the overall risk exposure by using the asset provided as a guarantee (Everett, 2014). For the SMEs a type of asset based lending solution that may represent one of the most important source of financing is represented by the invoice discounting that on the basis of the quality and the size of the revenues may give access to the capital markets (Zhang et al. 2016).

OBJECTIVES

In our paper we focus on the online invoice trading part of fintech, and try to identify the default probability and predictors of default within a case study platform system called Marketfinance.

ORIGINALITY AND APPLICATION TO THE INDUSTRY

Literature has shown that fintech loans are frequently facing an higher counterparty risk because the customers that look for their financial services are normally those that are already suffering of financial constraints in the standard lending market and so the portfolio of loans is affected by the adverse selection (OECD,2015). Risk management represent a strategic tool for the fintech companies in order to make the proper screening and monitoring of their portfolio and not only the profit margins but also the survival probability of the lender is related to the choices in the risk management strategy. The lack of experience that may characterize the new players in the lending industry is an issue for selecting the best customers and managing the lending relationship when the borrower is facing problems in repaying on time the debt assumed.

Invoice trading is a novel technique, and few studies focussed on the default, while more are targeting pricing impact on default. The research can develop into a paper targeting the defaults of other online invoice discounting platforms and reveal comparable differences.

METHODOLOGY

The paper will consider the database of Marketfinance, a UK company that represent one of the leading players in the fintech industry for the financial services offered to SMEs (Dorfleitner, Rad and Weber, 2017). The platform was founded in 2011, it is head quartered in London, U.K., with a total founding of \$58.8M, who reached £2bn of cumulative lending, heading to £3bn by end of 2021. The advantages of the platform invoice among others are speedy lending, easy interface, real-time support, no hidden costs, flexible terms and reputation

Collecting information from Marketfinance loan book, the empirical analysis provided will measure the probability of default of the portfolio of customers by considering all the borrowers and by classifying them on the basis of the size of the exposure, the time horizon of the lending solution and the type of invoice discounting (WholeLedger vs Standard). The analysis will not allow to measure only the probability of default but also the cure rate and the loss given defaults.

RESULTS ANALYSIS

Results obtained are useful for developing risk management skills in the fintech industry in order to differences in the role of each risk driver with respect to the expected loss (Stiglitz and Weiss, 1981; Dorfleitner et al., 2016; Wei and Lin, 2016). The comparison of the results achieved with the statistics for the traditional lending market will also allow to highlight the differences in the risk drivers for new players and to support the thesis about the difference in the target customers that will prefer to use the new type of lenders.

Keywords: fintech, default; invoice discounting; credit risk, SME, probability of default, loss given default, cure rate, payments; maturity

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THE IMPACT OF NEW TECHNOLOGIES ON THE CRUISE TRAVELERS EXPERIENCE: A LITERATURE REVIEW

Gonzales, Marcy; Loureiro, Sandra Maria Correia; Langaro, Daniela

ISCTE-Instituto Universitário de Lisboa and BRU Business Research Unit, Lisbon, Portugal

ABSTRACT

Companies around the world have been adopted different digital technologies such as online stores, digital panels, or even robotic assistance. These new technologies have also impacted the cruise industry, that is one of the fastest-growing sectors within the hospitality and tourism industry (Penco *et al.*, 2019; Shoval *et al.*, 2020). So, cruise companies are developing new technological ships using different digital technologies onboard such as Artificial Intelligence (AI) or Virtual Reality (VR). As an example of the adoption of this technologies, AI can be found in the Royal Caribbean's bionic bar that uses service robots (Lu *et al.*, 2019), in the latest MSC cruise ships that implemented a digital assistance called ZOE that assist onboard guest with reservation, inquires, and learn their preferences (Shallo, 2019; MSC Cruises, 2021), or even through online purchases that delivered the items to guest staterooms on the newest Celebrity Cruises ships (Maddox, 2019; Celebrity Cruises, 2020). On the other hand, VR is mainly used by cruise companies in areas such as shore excursions or culinary dining (Arlati *et al.*, 2018; Loureiro *et al.*, 2019). This denotes, that cruise companies are adopting these technologies to provide a new and better experience to their cruise travelers, as most of them use technologies in their daily lives activities and hope to find them also when they travel (CLIA, 2019).

Indeed, the acceptance and use of these new technologies will depend on the technological readiness of the consumer (Blut and Wang, 2020). In addition, when consumers interact with these technologies it can lead them to an emotional reaction, that can influence their behavioral responses (Gao and Bai, 2014). This emotional reaction is also known as an online flow state, which has been defined by Novak *et al.* (2000) as the state occurring during network navigation.

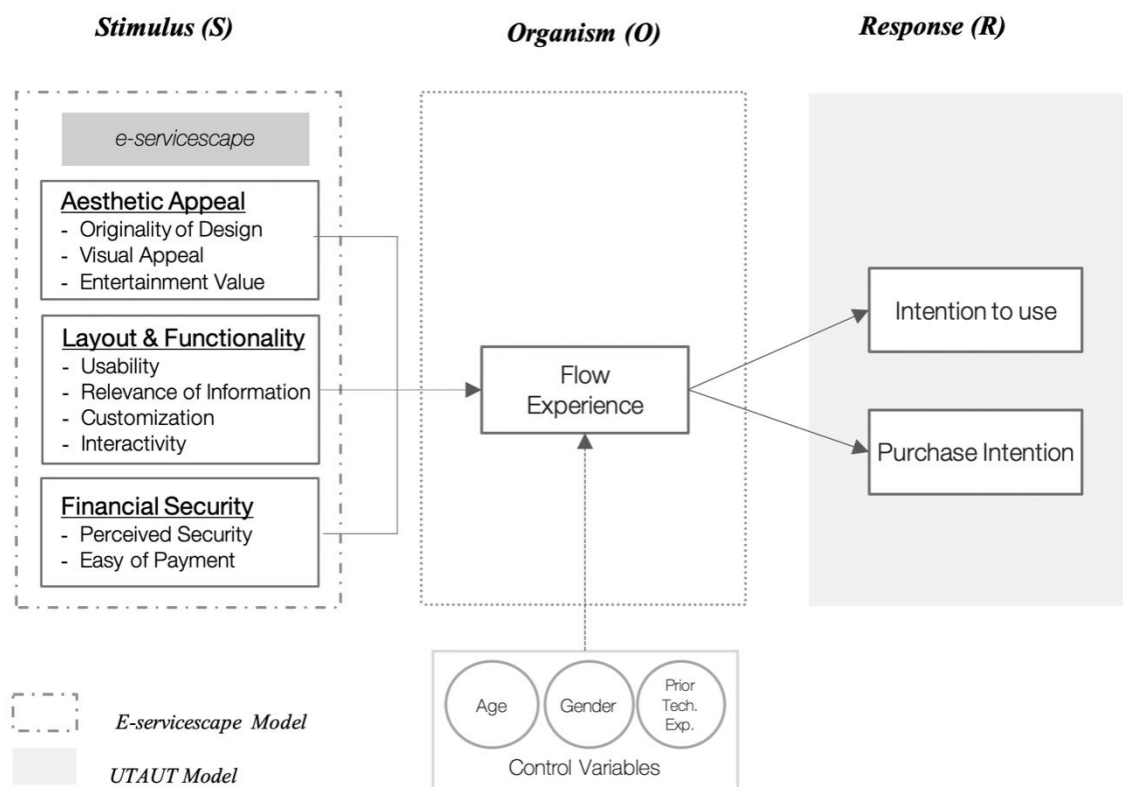
Also, literature in the hospitality, tourism, and technology industry reveals that further studies need to be done within cruise tourism and technologies (Lu *et al.*, 2019; Loureiro *et al.*, 2020). Therefore, this abstract paper is an integration of three different theories: S–O–R framework (Donovan and Rossiter, 1982), E-servicescape (Harris and Goode, 2010), and Flow experience (Gao and Bai, 2014), since with the S–O–R model the purpose of this paper is to explain how the E-servicescape environment on cruise ships (S), can lead to an emotional reaction of cruise ship travelers presented as a flow experience (O), and how this emotional reaction can influence the behavioral response of the cruise travelers (R) in relation to the intention of use technological devices onboard the cruise ship and purchase intention. (See figure 1).

As far as we know, this is the first time in the literature of the Hotel and Tourism Industry and also of the Technology Industry that this research is being conducted since most recent studies have been made in hotels, restaurants, and airports (Bogicevic *et al.*, 2017; Li, Bonn and Ye, 2019; de Kervenoael *et al.*, 2020; Hou, Zhang and Li, 2021).

Therefore, the expected research result of the project aims to provide some theoretical contributions in the literature of Tourism and Technology, as stated above, the present literature has some gaps between these industries. In addition, we also hope that these contributions can help future researchers in their projects related to these topics.

Additionally, the results obtained will provide some practical contributions to cruise companies, cruise ship managers, and marketers, as they can take into consideration the results that can allow them to have a better insight of the cruise traveler's reaction towards the future technologies implemented on their new ships.

Figure 1. Proposed framework



Keywords: Virtual reality, artificial intelligence, cruise , customer experience, e-servicescape, S-O-R framework, literature review

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THE IMPACT OF NEW TECHNOLOGIES ON THE CRUISE TRAVELERS EXPERIENCE: FROM DIGITAL TO VIRTUAL REALITY AND ARTIFICIAL INTELLIGENCE

González, Santiago; Marcya, Stefany

Instituto Universitário de Lisboa (ISCTE-IUL) and Business Research Unit (BRU/UNIDE) Lisbon, Portugal

ABSTRACT

The use of technologies in the daily lives of consumers is more common since most of the activities have been digitalized such as reading, listening to music, working, etc. These types of activities are more common for generations Y and Z, these last known as Digital Natives because since they were born have been surrounded and exposed to different digital technologies (Kesharwani, 2020).

Companies around the world have been adopted different digital technologies such as online stores, digital panels, or even robotic assistance. These new technologies have also impacted the cruise industry, that is one of the fastest-growing sectors within the hospitality and tourism industry (Penco et al., 2019; Shoval et al., 2020). So, cruise companies are developing new technological ships using different digital technologies onboard such as Artificial Intelligence (AI) or Virtual Reality (VR). As an example of the adoption of this technologies, AI can be found in the Royal Caribbean's bionic bar that uses service robots (Lu et al., 2019), in the latest MSC cruise ships that implemented ZOE digital assistance that assist onboard guest with reservation, inquires, and learn their preferences (Shallo, 2019; MSC Cruises, 2021), or even through online purchases that delivered the items to guest staterooms on the newest Celebrity Cruises ships (Maddox, 2019; Celebrity Cruises, 2020). On the other hand, VR is mainly used by cruise companies in areas such as shore excursions or culinary dining (Arlati et al., 2018). This denotes, that cruise companies are adopting these technologies to provide a new and better experience to their cruise travelers, as most of them use technologies in their daily lives activities and hope to find them also when they travel (CLIA, 2019).

Indeed, the acceptance and use of these new technologies will depend on the technological readiness of the consumer (Blut and Wang, 2020). In addition, when consumers interact with these technologies it can lead them to an emotional reaction, that can influence their behavioral responses (Gao and Bai, 2014). This emotional reaction is also known as an online flow state, which has been defined by Novak et al. (2000) as the state occurring during network navigation.

Finally, literature in the hospitality, tourism, and technology industry reveals that further studies need to be done within cruise tourism and technologies (Lu et al., 2019; Loureiro et al., 2020). Therefore, this paper is an integration of three different theories: S-O-R framework (Donovan and Rossiter, 1982), E-servicescape (Harris and Goode, 2010), and Flow experience (Gao and Bai, 2014), since with the S-O-R

model the purpose of this paper is to explain how the E-servicescape environment on cruise ships (S), can lead to an emotional reaction of cruise ship travelers presented as a flow experience (O), and how this emotional reaction can influence the behavioral response of the cruise travelers (R) in relation to the intention of use technological devices onboard the cruise ship and purchase intention.

Keywords: Cruise industry; E-servicescape; Flow experience; Technology readiness; S-O-R framework; Generation Y and Z

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CHANGES IN RUSSIAN GENERATING COMPANIES BUSINESS MODELS UNDER ACCELERATED DIGITAL TRANSFORMATION

Gorgisheli, Maria; Volkova, Irina

HSE University, HSE Graduate School of Business, Department of Strategic and International Management,
Moscow, Russia

ABSTRACT

RELEVANCE AND AIM OF THE STUDY

One of the key trends in the energy transition, which is the base of the transformation of global markets, is digitalisation (Kniahinin et al., 2017). It is a digital technology that can significantly affect the business processes of electricity companies. A kind of turning point in the emergence of digital reality came after the coronavirus pandemic hit many countries. The intensive use of digital solutions to keep many processes running has accelerated digital transformation, reinforced by and proactive policy of states (Alekseev A., et.al., 2019). Russia, among others, is implementing the national programme "Digital Economy of the Russian Federation", which implies building the necessary information infrastructure and increasing digital assets by 2024.

Influence of digital transformation is reflected in the transformation process of the Russian electricity sector, which directly affects companies in the generation segment, forcing them to change their business model to remain competitive. Institutional limitations and other factors also impose restrictions on generating companies.

To evaluate the influence of accelerated digital transformation on companies there is a need to analyse changes in business of foreign generation companies on the Russian power market. These companies are part of multinational energy companies, which are all diversified, high-tech and client-oriented with a wide range of services, but they have to adjust their business model to the Russian conditions. The study of this issue becomes most relevant at the present time, when the energy transition has not been completed yet, because allows estimating current level of companies' development and define development areas.

Identification of changes that occurred in the business of Russian generating companies with foreign participation under the accelerated digital transformation, as well as classification of these business models is the purpose of this work. Within the framework of this work, the subject of the study are Russian generating companies with foreign participation - Enel Russia, Fortum, Unipro, EDF.

METHODS

In order to conduct this study, a comprehensive analysis of available literature on energy transition, digital transformation, Russian power market and generating segment (academic articles, market reports and energy foresight studies) was made. The documents and information from the official websites of energy companies was considered as secondary data.

MAIN FINDINGS

The analysis of decisions and actions of Russian generating companies with foreign participation in response to the digital transformation is presented in Table 1.

	Enel Russia	Fortum	Unipro	EDF
Changes in the generation area	<ul style="list-style-type: none"> - Fuel management project - Water optimisation project - Predictive analytics to detect negative trends in the operation of combined heat and power plants - Maintenance planning system (e-Planner) (e-Planner) - Heat Rate Management digital project - Distributed Generation Solutions for Renewable Energies - Big Data and IoT technologies 	<ul style="list-style-type: none"> - Use of the Internet of Things (control and monitoring of plant equipment) - Management of distributed RES facilities at a distance 	<ul style="list-style-type: none"> - Shaturskaya TPP has launched the "Control Card Analysis" project 	- *
Changes in the area of supporting business processes	<ul style="list-style-type: none"> - Active development of digital skills of staff - Digitalisation of environmental reporting - Building an innovation culture - Implementation of Track&Rate (a digital app to evaluate supplier performance) 	<ul style="list-style-type: none"> - Use of the Internet of Things, centred on the Technology Information Centre 	<ul style="list-style-type: none"> - Automation of end-to-end integrated business process chains - Use of 'smart monitoring' of critical information systems - Improved performance of the dispatching system - Chatbot IT project 	<ul style="list-style-type: none"> - Using separate digital solutions to support business processes
Changes in the development of additional services	<ul style="list-style-type: none"> - Development of e-Mobility: solutions for the development 	<ul style="list-style-type: none"> - Management of green energy supply in 	<ul style="list-style-type: none"> - Automation of customer interaction processes within 	<ul style="list-style-type: none"> - Smart city design services - Dalkiya Rus is

	of electric transport, including smart charging stations for electric vehicles (Enel X) - Development of e-Industry: price-dependent reduction of electricity consumption, introduction of smart energy storage, energy efficiency solutions	cooperation with large consumers	individual services	actively engaged in the implementation of energy efficient technologies - Engineering services for a wide range of digital technologies - Collaboration with ROSATOM in the implementation and application of various technologies
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Table 1 – Digital changes of Russian generating companies with foreign participation to the digital transformation (Enel Russia, Fortum, Unipro, EDF websites)

** The company's generating capacity is not presented in Russia*

It is obvious that considered companies react to the new Russian power market conditions in a different way. The analysis presented in Table 1 shows that the digital transformation of Russian generating companies is taking place in different directions, the depth of transformation is influenced by the area of change. Such a result will also affect the business models of companies under accelerated digital transformation.

The conducted analysis also allows classifying business models (BM) of foreign generating companies on Russian power market under digital transformation as follows:

1. BM of Enel Russia – Enel Russia focuses on digitalisation of its generating capacity and supporting business processes. Enel Russia is also engaged in the development of selected services. Enel Russia's model is a hybrid one: "Digital Generator" and "Digital Assistive Solutions Conductor";
2. BM of Fortum – in Russia Fortum is developing a digital transformation in improving the efficiency of its generation capacity and ancillary operations. Additional services provided by the company in the market have not been widely developed. Fortum's model also is a hybrid one: "Digital Generator" and "Digital Assistive Solutions Conductor";
3. BM of Unipro – Unipro's main focus within digital transformation is the use of digital technology in the case of supporting business processes. Unipro's model is "Digital Assistive Solutions Conductor";
4. BM of EDF – most of the company's digital projects focus on the services it provides to the market. EDF's model is "Provider of digital services".

Thus, although all of the companies examined are adopting digital solutions in their BM, their strategy in such environments is different.

Keywords: generating company, business model, Russian electricity market, digital transformation

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- Official website of Unipro in Russia, available at: <https://www.unipro.energy/en/>

THE MEDIATING EFFECTS OF CLIMATE FOR INITIATIVE AND JOB AUTONOMY IN THE EMPOWERING LEADERSHIP-INNOVATIVE BEHAVIOR LINK

Hassi, Abderrahman¹; Rohlfer, Sylvia²; Jebsen, Simon³

¹School of Business Administration, Al Akhawayn University, Morocco

²CUNEF, Madrid, Spain

³Department of Entrepreneurship and Relationship Management, University of Southern Denmark, Denmark

ABSTRACT

The purpose of this paper is to add to the contingency literature on innovation and creativity and to address the call for research on business practices that instigate innovative work behavior (IWB). We resorted to the Structural Equation Modelling technique along the Bayesian estimation approach to analyze the mediating role of the organizational climate for initiative and job autonomy in the empowering leadership-IWB link in data gathered from CEOs, middle managers and non-managerial employees of 444 small and medium enterprises (SMEs) in Morocco. The findings revealed that empowering leadership is a prerequisite of IWB as subordinates, who are empowered by their leaders, demonstrate IWB. Further, organizational climate for initiative and job autonomy mediate the empowering leadership-IWB link. This research has demonstrated that firms and organizational leaders who seek to make their middle managers innovative in their job should adopt empowering leadership practices, build an organizational climate that is favorable for initiative-taking and grant middle managers with autonomy in the way they carry out their tasks. This paper extends our understanding on the mechanisms linking empowering leadership and IWB by testing the mediating effects of organizational climate for initiative and job autonomy.

Keywords: Empowering leadership; climate for initiative; job autonomy; innovative work behavior.

DUTCH DISEASE: THE MACRO-ECONOMIC EFFECT OF NIGERIA'S OIL ECONOMY AND POSSIBLE REMEDIES

Henry-Eshiet, Eno¹; Kaufmann, Hans Rudiger¹; Hadjistassou, Constantinos²

¹Management & MIS Department, University of Nicosia, UNIC, Nicosia, Cyprus.

²Energy, Oil & Gas Engineering Department, University of Nicosia, UNIC, Nicosia, Cyprus

ABSTRACT

Natural resource discoveries are expected to generate significant macroeconomic effects with implications for the design of fiscal and monetary policy. In this respect, Nigeria's oil wealth undermines equitable economic growth, rather than contributing to democratic governance and faster economic growth (Bird, 2004; Fardmanesh, 1991). Dutch disease (DD) is known to be conditional for major market failures triggered by the existence of cheap and abundant natural resources that keep overvaluing the currency of a country whereby the rapid development of one sector precipitates a decline in other sector/s, inequality and unemployment (Brahmbhatt, Canuto, & Vostroknutova, 2010).

This research aims to examine the influence of DD on the Nigeria's economy and to derive macroeconomic indicators for possible remedies. Its main objective is to investigate the reasons for Nigeria's seemingly slow growth rate compared to other oil-rich economies in Europe (Norway) and the Middle-East. It draws conceptualization/s from current resource revenue management literature with critique of five Dutch disease models/theories especially those relevant to the dynamic economics and institutions indicating a gap in terms of a lack of consideration of effective Knowledge Transfer (KT) mechanisms.

The initial conceptualization and methodology presents the quantitative stage 1 where data from World Bank (2000-2019) show the loss-co-efficient, to validate the following hypotheses: 1. "there is a significant relationship between DD and oil abundance and 2. there is a relationship between effective KT and oil resource in Nigeria." Thereafter, the quantitative research stage 2 and the qualitative empirical stage validate the previous findings with emphasis on effective knowledge transfer methodology to re-address the macroeconomic balance.

Keywords: Dutch disease, Natural/Oil resource, Exchange rate, Economic growth, Oil revenue, Overdependence, Economic diversification, Knowledge transfer, Unemployment, Poverty.

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#GOVEGAN: UNDERSTANDING VALUE CO-CREATION AND CONSUMER ENGAGEMENT IN ONLINE CONSUMPTION COMMUNITIES

Hungara, Ana Paula; Nobre, Helena

Research Unit on Governance, Competitiveness and Public Policy (GOVCOPP) and Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), University of Aveiro, Aveiro, Portugal

ABSTRACT

Consumption is becoming increasingly dematerialized and intangible, or liquid (Bardhi and Eckhardt, 2017). This evolution is represented in the marketing literature by the shift from a goods-dominant view towards a focus on relationships (*Service Dominant View*, Vargo and Lusch, 2004), driven by the internet and eCommerce. This context enhances the appearance of new group levels. In that sense, online fan groups, consumer tribes and brand communities, among others, emerge in social media (Kozinets, 2019). Most of the literature on the field focus on brand communities and there is still a research gap regarding the vitality of communities not particularly focused on brands. This research gap was also previously identified by Merz, He and Vargo (2009) as a fruitful direction for future research. In the online context, consumers do not necessarily focus on a particular brand or consumption interest. Instead, online communities enhance the sharing of ideas regarding diverse consumption interests and lifestyles (Weijo, Hietanen and Mattila, 2014). Moreover, the motivations for people to join these communities and contribute to value co-creation through their interactions have been understudied (Ind, Coates and Lerman, 2019). To understand the dynamics of online consumption communities, we combine the theoretical grounds of Consumer Culture Theory (CCT) and value co-creation theory (Vargo and Lusch, 2004). CCT is a research tradition established in 2005 by Arnould and Thompson. It comprises the experiential, socio-cultural and symbolic aspects of consumption. CCT is multidisciplinary and composed of four main theoretical dimensions: 1) Consumer Identity Projects; 2) Marketplace Cultures; 3) The Socio-Historic Patterning of Consumption; 4) Mass-Mediated Marketplace Ideologies and Consumers' Interpretive Strategies (Arnould and Thompson, 2018). One of its theoretical dimensions, marketplace cultures, addresses the socio-cultural and material contexts (Rokka, 2021) in consumption collectives or communities. These communities facilitate the creation, co-creation, negotiation and diffusion of meanings, practices, and performances (Rokka, 2021; Sorensen, Andrews and Drennan, 2017). According to Merz, He and Vargo, (2009), consumers are endogenous to value creation. They can engage in co-creation activities of marketplace symbols, meanings and market offerings (Bardhi and Eckhardt, 2017). Thus, consumers become proactive makers of meaning, who shape their interactions with firms, their experiences and co-create value with organizations and other consumers (Hollebeek and Belk, in

press; Sorensen *et al.*, 2017). In online communities, companies can interact and collaborate with consumers over time (Ind *et al.*, 2020), through practices. Practices are sets of behaviours that include understandings, discourses and procedures (Schau, Muñiz and Arnould, 2009). They address not only the functional but also the symbolic benefits of the brand (Merz *et al.*, 2009). Practices are important to understand consumer behaviour because they generate and determine consumption behaviours and patterns (Schau *et al.*, 2009). In that sense, the most widely applied framework are Schau's *et al.* (2009) twelve brand community practices, which spread across four main typologies: 1) social networking; 2) impression management; 3) community engagement; 4) brand use.

We sought to address the dynamics of consumption community practices through an exploratory netnography in three Portuguese vegan communities. Netnography is an appropriate method to address the practices of online vegan communities since it provides a deep understanding of its rituals, symbols, values, meanings, and relations of power (Arnould and Epp, 2006). Moreover, this method is widely used in CCT-inspired research (Hollebeek and Belk, in press). We use vegan communities as our research setting due to the richness and complexity of their practices (Greenebaum, 2012). Indeed, these communities are largely lifestyle-based and provide cultural tools to promote changes in consumption habits (Cherry, 2015). In order to check the feasibility of netnographic procedures to these online communities, we first performed a preliminary study that followed a thematic analysis design. Data collected for this preliminary study comprises posts by six members of these communities, for six months. In line with the General Data Protection Regulations (GDPR) of the European Union, we ensured the participants that this data would only be used for this study and that we would ensure its anonymity. We searched for posts by these six consumers across three Facebook groups dedicated to veganism. We followed five criteria for selecting the posts to analyze: relevance, activity, interactivity, diversity, and richness (Kozinets, 2019). We used NVIVO to support the analysis of content. This software can be used to facilitate coding, even though it does not fully replace human analysis (Arnould and Epp, 2006). Moreover, we used a combination of inductive and deductive approaches to coding: open coding, axial coding and selective coding (Veréb, Nobre and Farhangmehr, 2020). We departed from Schau *et al.*'s (2009) brand community practices typologies of brand use, community engagement and social networking to categorize practices. Eight distinct practices specific to these vegan communities emerged from the data analysis. The practices that we identified as unique to these communities were as follows: 1) brand promoting; 2) entrepreneurship; 3) celebrity sponsoring; 4) influencing; 5) shocking; 6) opinion and information-seeking; 7) local buying; 8) expanding. This study offers managerial implications for practitioners in the establishment of engagement practices in communities. We believe that they can benefit from engaging with these communities since consumption habits are changing rapidly. The study also has implications for

researchers since it extends the study of consumption communities beyond the scope of the brand and provides a broader understanding of practices adopted in online consumption communities. Besides, it answers Merz *et al*'s (2009) calls for studies that address communities not focused on a brand. Although the sample size limits the generalizability of findings, this is a preliminary stage of an in-progress study. We plan to depart from the practices identified in this study and address a larger sample of communities and participants, and/or different community typologies in future research.

Keywords: Consumer Culture Theory; CCT; Consumption Communities; Value Co-Creation; Vegan Communities;

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STAKEHOLDERS ENGAGEMENT THROUGH SOCIAL MEDIA: EXPERIENCES OF EUROPEAN COMPANIES

Iazzi, Antonio; Fait, Monica; Maizza, Amedeo; Ligorio, Lorenzo

Department of Economics, University of Salento, Lecce, Italy

ABSTRACT

The Sustainable Development Goals (SDGs) delivered by United Nations have increased the attention of companies to corporate social responsibility (CSR). Companies are aware that focusing on sustainable development can contribute positively to the pursuit of long-term competitive advantages. The benefits regard reputation improvement, risk reduction and to better relationships with employees and stakeholders (Carroll & Shabana, 2010). A strategy based on relational CSR implies stakeholder involvement in a network of mutual responsibility (Manetti, 2011). Stakeholder engagement (SE) require the management of stakeholder participation in decision making (Greenwood, 2007). Through stakeholder engagement, companies can determine which information and data should be included in their CSR report (Manetti, 2011) and which sustainable development goals among those defined by the UN 2030 Agenda they should focus more and report on. In fact, they engage stakeholders to identify their expectations, and to communicate how they are being responded to (Devin and Lane, 2014; Dobelet al., 2014), and then to ensure that organizational decisions and activities are socially acceptable (Green and Hunton-Clarke, 2003).

The knowledge generate by stakeholders engagement determines the quality of the CSR (Frostenson et al., 2011).The CSR stakeholder engagement has a vital role in in the development of CSR strategies (O'Riordan and Fairbrass 2008), because represents how the firm's CSR response is viewed and evaluated by stakeholders (O'Riordan and Fairbrass 2006). The activation, then, of a two-way symmetrical communication, as progressive iterations of sense-making and sensegiving processes, become fundamental to an efficace stakeholder involvement strategy (Morsing and Schultz, 2006). This suggests that companies engage frequently and systematically in dialogue with their stakeholders in order to explore mutually beneficial action and potential changes. Surucu-Balci, Balci, & Yuen, (2020) suggest that the two-way symmetrical communication can improve can be satisfied by the interactive nature of social media, transforming the stakeholder engagement in a challenge. In fact, if social media are able to remove the boundaries between organizations and stakeholders, a successful engagement is achieved when the CSR communication process is effective (Du, Bhattacharya, & Sen, 2010). In this perspective, this paper aims to understand how social media platforms can increase the ability to create new knowledge through the stakeholder involvement process in the CSR activities.

Twitter is one of the social media platforms most used to target large audiences and communities (Wright & Hinson, 2014). To achieve the goals of engagement, tweets should contain relevant messages and appealing contents aimed at attracting and engaging their followers in interactive conversations (Camilleri, 2020) with the aim at establishing a long term relationship (Sashi, 2012).

The main purpose of this research is to understand how social media platforms can increase the ability to create new knowledge in the field of sustainability through the CSR communication and the stakeholder involvement in the European context.

With the aim of understanding how social media can develop knowledge through the involvement of stakeholders, authors have focused their attention on the determinants of the engagement for the CSR tweets based on the UN SDGs, which amply the necessity to understand those dynamics at international level for the industries. Based on Viglia et al. (2018), we have elaborated a model that extant the cognitive elements of engagement able to trigger the behavioral activation component, which can be assessed through visible interactions of the followers' reactions. It focuses on three participations degrees of social media users, linked to the effort and time they have spent to demonstrate their participation (Bonsón & Ratkai, 2013). For the purpose of our paper, we reorganized those three levels in "favorite", "retweets" and "comments". The followers' reactions help us to assess the effectiveness of the CSR messages (Kucukusta et al., 2019).

After analysing the three levels of interaction achievable from organizations, our study focused on the topic disclosed and content type (Pletikosa Cvijikj and Michahelles, 2013) together with the sentiment of message (Surucu-Balci et al., 2020) used by organizations in their CSR tweets. The goal was to verify their ability to provoke several reactions, so different levels of interaction in the stakeholders of European industries.

The sample of analysis has been built considering the 1000 companies identified by the The Alliance for Corporate Transparency (2020) that are interested by the European directive on non-financial reporting.

The choice to use Twitter as main source is related to its high degree of reliability (Neu et al., 2019). The collected data has been reduced to a single year. The time range has been set to the year 2019 in order to have a complete picture of the information flowing linked with the financial year (Gómez-Carrasco, Guillamón-Saorín, & García Osma, 2020). A content analysis (Krippendorff, 2018) has been developed to identify the determinants that are influencing the engagement of the CSR tweets. The content analysis represents a widely adopted method used in management studies to collect qualitative information about specific phenomenon (Parsons, 2013). The extraction of the units from the official Twitter accounts has been developed using the tool NCapture included in the software Nvivo 12 (Hai-Jew, 2014). The analysis of the results has been structured using a mixed methods

approach. The first step is represented by a qualitative analysis developed to understand the main topics that are being disclosed in the tweets. Furthermore, a sentiment analysis was used to understand the tone adopted by the companies in the communication towards stakeholders (Etter, 2014). The second phase of analysis has been operated through the development of a quantitative analysis. In particular, a series of Poisson regressions have been operated to understand the determinants that are influencing the number of favorites, retweets and comments in CSR related tweets (Mariani, Mura, & Di Felice, 2018). Finally, to verify the results of the thematic analysis achieved in the first part of the study, an ANOVA test has been conducted to understand how the disclosure of a topic impacts on the engagement in terms of favorites, comments and retweets mean value.

The companies are adopting Twitter as disclosure channel for their group communication because of the broadcasting feature embedded in the platform. In particular, being a micro-blogging service, Twitter is an effective tool to directly engage stakeholders when disclosing CSR related information (Etter, 2014).

The results of this study demonstrate that the success of stakeholder engagement via Twitter is affected by both sentiment and the various characteristics of posts. About the sentiment of posts, the European companies observed prefer a neutral tone (moderately positive), regardless the sector they belong to. The analysis has evidenced how media contents such as photos and videos represent an effective tool for the engagement of stakeholders in Europe.

The SDGs disclosure on Twitter messages appears to be a positive driver of engagement.

The information strategy is a recurrent means for industries, in particular for this that operate in controversial sector (Vollero et al. 2019), to secure stakeholders' interest in engaging with the company and leveraging on their fears, self-interest, and moral / ethical concerns (Lane & Devin, 2018).

Keywords: Social media, Stakeholder engagement, Corporate Social Responsibility, Sustainable Development Goals

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COMPARING THE EFFECTS OF 'SHOWING AVAILABLE PRODUCT' AND 'SHOWING UNAVAILABLE PRODUCT' BY SOCIAL MEDIA INFLUENCERS FOR MID-LEVEL FASHION BRANDS IN CHINA

Jiang, Liru; Zeng, Ni; Shang, Enshang

Faculty of Science and Technology, University of Manchester, UOM, Manchester, UK

ABSTRACT

1. RESEARCH GAP AND RESEARCH AIM

According to Wu (2020), social media marketing develops quickly with some new activities appearing recently. For example, influencers were asked to show past-season product through social media by the head of buying of Voo Store, who indicated that this activity aimed to build connections with customers, rather than pushing product to customers (Chitrakorn, 2021). This new forms of influencer marketing activity is worth studying to test its effectiveness. In addition, little studies about fashion brands focus on mid-level fashion brands, so, it could be meaningful to do some academic research about influencer marketing for mid-level fashion brands. According to Levin (2020), the objectives of influencer marketing include driving awareness and consideration from customers, this study fills the academic gap of influencer marketing by testing the effects of showing available product and the new form of connecting to customers (showing unavailable product) by social media influencers on achieving awareness and consideration. In addition, according to Yu and Hu (2020), social media influencer marketing has its unique features in China. So, this study is based on mid-level market fashion brands in China. The aim of the research is testing the effects of showing available product and unavailable product by social media influencers in achieving awareness and consideration for mid-level market fashion brands.

2. METHODOLOGY AND RESEARCH MODEL

This study is a quantitative research, online questionnaires are used for collecting data. The participants are 300 Chinese females (16-25 years old), because generation Z is the representative generation exposed to digital marketing (Djafarova and Bowes, 2021). Independent sample T-test will be used to compare the two forms of influencer marketing activities (independent variables) through Xiaohongshu (a typical Chinese social media platform whose English name is RED). The dependent variables are the effects of influencer marketing (awareness and consideration). The research results are based on a S-O-R model showed in Fig.1. The effects of showing available product and unavailable

product by social media influencers for mid-level market fashion brands will be tested. This is a positional research, the data will be collected before the conference.



Fig. 1: Application of S-O-R model for the current study

3. CONTRIBUTION FOR THE FIELD AND MANAGERIAL PRACTICE

This research compares the effectiveness of two different social media influencer activities, which will contribute to the development of influencer marketing strategies based on new social media activities. In addition, this contribution will be based on mid-level fashion brands, which can make this research more specific and meaningful.

This research is also practically useful. The research results can reveal whether the new social media activity is influential, as a result, mid-level fashion brands can know exactly whether the new form of influencer activity will achieve their marketing aims. In this way, the research results can help relevant brands know more about different types of influencer activities and then make more effective marketing strategies.

In summary, this research is both meaningful for the field and managerial practice. In addition, this research is original and hasn't been published in any form before.

Keywords: influencer marketing, mid-level fashion brands, social media marketing

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THE EFFECTS OF ENDORSER TYPES ON PSYCHOLOGICAL DISTANCE AND VALUE PERCEPTIONS OF LUXURY FASHION BRANDS

Jiang, Liru; Vignali, Gianpaolo; Doyle, Stephen

Faculty of Science and Technology, University of Manchester, UOM, Manchester, UK

ABSTRACT

1. RESEARCH GAP

Park *et al.* (2018) indicate that nearer psychological distance caused by higher brand-consumer engagement leads to consumers' negative perceptions to luxury brands. The psychological distance mentioned by Park *et al.* (2018) is defined as 'consumers' subjective perception of the distance between a luxury brand and the mass-market consumers'. However, according to Gong and Li (2017), para-social interaction between popular celebrity endorsers and their fans has positive influences on the effectiveness of celebrity endorsement on social media (this research is based on a clothes endorsement but not specified on luxury fashion brand). Para-social interaction leads to closer psychological relationship between celebrities and the audience on social media (*ibid*), closer psychological relationship means smaller social distance within psychological distance (i.e., a close friend means near psychological distance while a stranger means distant psychological distance) (Chou, 2015). Accordingly, whether familiar celebrity endorsers will lead to near social psychological distance between endorsers and consumers, and whether this leads to consumers' negative perceptions to luxury fashion brand should be investigated. In addition, non-expert celebrity endorser and expert celebrity endorser lead to different effectiveness of celebrity endorsement (Aggarwal-Gupta & Dang, 2009). Little research studies the relationship between psychological distance and the category of endorsers. So, the psychological distance between different celebrity endorsers (familiar celebrity expert endorser versus unfamiliar celebrity expert endorser) and consumers and its relationship with value perceptions of luxury fashion brands are investigated in this research.

2. RESEARCH AIM AND OBJECTIVES

This research aims to illustrate the influence of different types of endorsers on social psychological distance of luxury fashion brands. The objectives are to test the effect of different types of endorsers on social psychological distance of luxury fashion brands (H1) and the value perceptions of luxury fashion brands (H2) and the mediating role of social psychological distance (H3). Fig. 1 shows the research model and it is based on the social distance dimension of construal level theory of psychological

distance (Liberman and Trope, 2008). This is a positional research, the data will be collected before the conference.

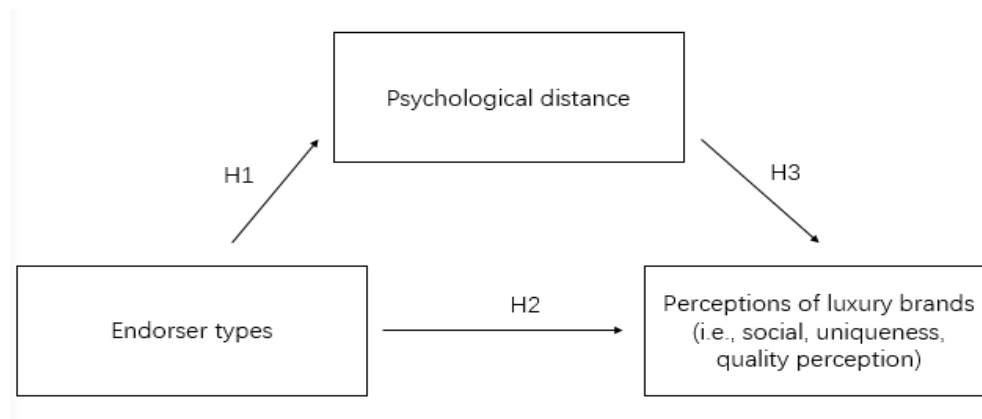


Fig. 1. The research model

3. METHODOLOGY

A quantitative approach through online survey is used in this research to test hypotheses showed in the research model. Questionnaires will be sent to 300 participants online, snowball sampling will be used in this study, the participants chosen are young Chinese females (16-25 years old) to avoid the influences caused by cultural, age and gender differences, this is also because generation Z is the group that typically influenced by digital communication (Djafarova and Bowes, 2021). This research will be based on Xiaohongshu (a typical Chinese social media platform). Regression analysis through SPSS will be used to test the mediating role of psychological distance. The independent variables are endorser types, and the dependent variables are perceptions of luxury brands.

4. CONTRIBUTION FOR THE FIELD AND MANAGERIAL PRACTICE

This research will reveal the influence of different types of endorsers on social psychological distance of luxury fashion brands, which fills the academic gap and contribute to better understanding of the relationship between social psychological distance and celebrity endorsement for future research. Except for the contribution for the field, this research is also practically useful. The research results will indicate how perceptions of luxury brands are influenced by different types of endorsers, which can help luxury fashion brands to make celebrity endorsement strategies more effective.

In summary, this research is both meaningful for the field and managerial practice. In addition, this research is original and hasn't been published in any form before.

Keywords: celebrity endorsement, psychological distance, value perceptions, luxury fashion brands, social media marketing

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THE IMPACT OF LEADERSHIP STYLES ON STRATEGIC FLEXIBILITY: A STRUCTURAL MODEL ANALYSIS

Kafetzopoulos, Dimitrios¹; Skalkos, Dimitrios²

¹Department of Business Administration, University of Macedonia, Thessaloniki, Greece

²Department of Chemistry, University of Ioannina, Ioannina, Greece

ABSTRACT

INTRODUCTION

The concept of strategic flexibility has gained significant importance in recent times as it provides many advantages to businesses. Flexible firms rapidly shift from one strategy to another. So, they can realize different strategic actions in the competitive arena. Also, strategic flexibility enables businesses to obtain sustainable competitive advantage by making businesses become more proactive (Cingöz and Akdoğan, 2013). Sanchez (1997) points out that a basic method to deal with environmental uncertainty is to build strategic flexibility. Hitt et al. (1998) also state that organizations should first depend on the cultivation of strategic flexibility to attain organizational goals. For achieving strategic flexibility, several mechanisms have been suggested. Some authors found that certain practices of management, such as leadership, contribute to strategic flexibility (Roh et al., 2015; Wang et al., 2015; Fernandez-Perez et al., 2014; Escrig-Tena et al. 2011). Firms seek to adopt a leadership style that ensures that teams work seamlessly for smooth attainment of the organization's vision and core mandate, while remaining relevant in the ever-changing market dynamics (Onyango 2015). Hess and Flatten (2019) support the view that leadership endorses appropriate operational practices and policies in supporting, developing and maintaining strategic flexibility (Xiu et al., 2017). This is supported by upper echelons theory (Hambrick, 2007) and the theory of transformational leadership (Pieterse et al., 2010). Nevertheless, little is known about the particular leadership style which companies should rely on in order to enhance their strategic flexibility and achieve competitive advantage. Based on the above, this study investigates the effect of four different leadership styles on the formation of strategic flexibility. Specifically, its main purpose is to investigate which of the four different leadership styles (authoritative, transformational, entrepreneurial and transactional) is the most suitable on making people and organization work more effectively in collective processes to respond to an uncertain business environment and to create coherent strategies and flexible outcomes (strategic flexibility). Hence, this study enriches the antecedents which provide important implications for building firms' strategic flexibility.

RESEARCH METHODOLOGY

A survey questionnaire was prepared to evaluate the perceptions of Greek firms' employees on leadership styles and strategic flexibility. A total of 480 completed questionnaires were used for the analysis. Regarding the normality of the data, all measured variables in this study exhibited univariate normality and did not suffer from skew and kurtosis. The mean score of each of the latent factors was computed and analysed to estimate the level of implementation perceived by the respondents. Data analysis was performed by the use of the SPSS 24.0 and AMOS software. First, we ran exploratory factor analysis (EFA) that revealed five constructs, namely authoritative leadership, transformational leadership, entrepreneurial leadership, transactional leadership and strategic flexibility respectively. Then, the confirmatory factor analysis (CFA) was also applied in addition to EFA. The following fit indexes were obtained for the full measurement model: $\chi^2=615.693$; $df=250$; $\chi^2/df=2.463$; $p=0.000$; CFI=0.957; AGFI=0.881; GFI=0.908; SRMR=0.076; RMSEA=0.055; IFI=0.958; TLI=0.949, indicating a good fit. In order to determine the structural relationships between the investigated constructs, the structural equation model method was applied.

RESULTS AND CONCLUSION

The structural model results prove that both, transformational leadership and entrepreneurial leadership have a significant positive effect on strategic flexibility ($b=0.207$, $p<0.01$) and ($b=0.441$, $p<0.001$) accordingly. Entrepreneurial leadership is the most influential style followed by transformational leadership. Contrary to what might be expected, authoritative leadership ($b=0.076$, $p=0.315$) and transactional leadership ($b=0.034$, $p=0.494$) were not found to have a direct significant effect on strategic flexibility. The results of this research help to extend the frontiers of the literature as is among the first to construct a framework addressing whether firms should adopt particular leadership styles to enhance their strategic flexibility. These findings highlight the claim of certain researchers that capabilities, values and attitudes of leaders are highly influential factors in determining whether firms enhance strategic flexibility. The results of this study build on existing theory concerning the importance of entrepreneurial and transformational leadership to provide direction, set organisational priorities, establish strategic goals and create an overall supportive environment for strategic flexibility. The study also has a practical application. Leaders should actively adjust or improve their leadership style and make full use of the advantages of entrepreneurial and transformational leadership characteristics to achieve flexibility in different situations. We suggest that future studies should collect data at several points in time in order to capture the evolving nature of strategic flexibility. Moreover, it will be important to expand the model

by taking into consideration different leadership styles, for example, visionary, ambidextrous or empowering leadership.

Keywords: Leadership styles, Strategic flexibility, Structural model

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INFORMATION SYSTEM ASSISTED KNOWLEDGE ACCOUNTING

Karagiorgos, A.¹; Lazos, Grigoris²; Stavropoulos, Antonios³; Karagiorgou, Dimitra³; Valkani, Fani⁴

¹Department of Accounting, School of Business, Univeristy of Nicosia

²Department of Economics, International University of Greece, Greece

³Department of Applied Informatics, University of Macedonia, Thessaloniki, Greece

⁴University of Macedonia, Greece

ABSTRACT

Knowledge is applied in all basic business processes, the same time it works as precondition for performance and development of competitive advantage. Direct access to sufficient and reliable information, lead to the search for effective tools for the creation, aggregation and exchange of knowledge. The latter becomes a key goal for information systems. This paper examines issues that focus on the importance of accounting generated knowledge information and its role in modern business. Emphasis is placed on the benefits and critical success factors of knowledge management systems, as essential information systems to support and enhance organizational processes. Rapid developments in information and communication technologies and the realization that knowledge is a resource of general and cost strategic importance have led to changes in the operational structures of companies, shifting its value from materials to intangible assets. The need for an accounting valuation of intellectual capital in order to present the true picture of business value is evident in the efforts to build models for valuation and management of intellectual capital. Using a questionnaire, information is obtained regarding the management of knowledge and the adoption of information systems. A five-factor model related to Information Communication, Information Cognitive Utilization, Functional Optimization, Applicability and Cognitive Efficiency was created.

Keywords: Knowledge Accounting, Knowledge, Intellectual Capital, Information Systems.

ACTIVE GOVERNANCE AND SMART CITIZENSHIP. WHEN ACTIVE CITIZENS REPLACE SMART TECHNOLOGY

**Konstantinou, Panagiota¹; Stamataki, Maria²; Stathakis, Georgios³; Nomikou, Maria-Georgia⁴;
Mountzouri, Athina¹**

¹University of West Attica, Department of Graphic and Visual Communication design, Athens, Greece

² Municipality Papagou Cholargou, Athens, Greece

³Open University of Cyprus, Faculty of Economics and Management, Latsia, Cyprus

⁴University of West Attica, Department of Wine, Vine and Beverage Sciences, acronyms Athens, Greece

ABSTRACT

Smart cities, to promote their citizen's lives, make use of modern technologies and infrastructures. The Smart City has various dimensions as a living organism with a specific area and administrative structures. An essential element of Smart Cities is human capital. The existence of technological achievements framed by Smart Citizens creates natural intelligence in a town. Smart Cities are the future of urban coexistence and sustainability. Today, cities are increasingly dependent on networks, sensors and microcontrollers. Artificial intelligence has managed to mimic human behavior, and in a few years, many human tasks could be replaced by machines. Smart Cities are evolving simultaneously in all countries, from the poorest to the most economically viable. Today Smart City applications based on artificial intelligence and also in citizen observation and action.

Cities have the opportunity to host all kinds of intelligent initiatives to serve their citizens and respectively to accept their participation. Municipalities, trying to respond to everyday problems in a practical way, suggest using mobile devices to report various daily issues and enable the citizen to monitor the stages of relevant solutions. Other innovative city applications target deeper within the state where its regulatory and interactive values are defined. The Smart City needs technologically modern infrastructure, but its development would not be possible without the support of citizens. Governments worldwide seek to reach out to citizens to participate in Smart City projects. Smart Cities need "Smart People" who can be involved in both governance and reform. This kind of citizen participation is more than just ritual participation in government. Intelligent people are the lifeblood of Smart City, which participates in decision-making, implementation of reforms and holds an active role in developing intelligent solutions. Competent citizens can contribute more to their city, and they can oversee the implementation and design of its infrastructure to create sustainable developments for Smart Cities.

E-government has the potential to lead cities and emphasize how cities can function collaboratively, promoting competitiveness and prosperity. Existing intelligent city applications are helpful but do not

emphasize the human dimension of cities. In a brilliant town, people play a leading role, and digital technology plays a supporting role. Creating an urban ecosystem based on the participation and innovation of citizen communities willing to interact with city authorities would be essential and lead citizens to new forms of governance. In this case, citizens are the force of change that somehow ensures that every day could deal with in the most profitable way.

In this research we have assessed the importance of "Smart Citizens" in reaping the benefits of a Smart City. Exploring examples of Smart Cities around the world, we examine good practices that contribute to citizens' cooperation with the technological structures of cities and improve the standard of urban life.

Our type of research is exploratory. The aim is to look for ideas that can be further exploited. Our basic research technique is based on utilization of previous related studies reviews and data. For that reason, we have studied the most important recent advances in the field.

Keywords: Smart City, Urban Living, Smart People, Active Citizens, Smart Governance, Participatory Governance.

THE IMPACT OF SPONSORSHIP ON ELECTRONIC AND TRADITIONAL WORD OF MOUTH COMMUNICATION

Koronios, Konstantinos¹; Ntasis, Lazaros²; Dimitropoulos, Panagiotis³; Thrassou, Alkis⁴; Douvis,
John⁵

¹Department of Accounting and Finance, University of Peloponnese, Kalamata, Greece

²Department of Economics, University of Peloponnese, Tripoli, Greece.

³Department of Sport Organization and Management, University of Peloponnese, Sparta, Greece, and School of Social Sciences, Hellenic Open University, Patra, Greece

⁴Department of Marketing, University of Nicosia, Nicosia, Cyprus

⁵Department of Sport Organization and Management, University of Peloponnese, Sparta, Greece

ABSTRACT

This study was conducted to examine how sport sponsorship affected consumers' electronic and traditional word of mouth intentions towards sponsors' products. A Quantitative approach was applied with 1,332 respondents who were participants and spectators of a major Taekwondo tournament, taken place in Athens, Greece. The results demonstrate the current power of technology and social media in sports sponsorship. The fast-paced impact of media and technology on today's sports markets must be taken into account for further and reliable sponsor strategies.

INTRODUCTION- AIM OF RESEARCH

Among the numerous attributes of modern sport is its capacity to persuade individuals energetically and connect with them emotionally, which has constituted sport a valuable tool for sponsorship. Sponsorship keeps on developing as a marketing tool with companies devoting a large percentage of their overall marketing spending to sport sponsorship. One significant outcome of sport sponsorship is the formation of spectators' positive word of mouth intentions, which constitutes a major objective of sponsors while taking part in sponsorship agreements (Koronios et al, 2020). The emergence of the Internet has incredibly changed the way consumers communicate with others, leading to the appearance of new forms of word-of-mouth: that is. electronic word-of-mouth - referred to as e-WOM (Breazeale, 2009). The e-WOM exists on a variety of online channels such as blogs, e-mails, websites and social media. Past research has concentrated on the comprehension of the factors influencing positive sponsorship outcomes, such as consumers' purchase and word of mouth intentions. A more precise evaluation of the factors influencing both traditional and electronic word of mouth intentions is of necessity. The scope of this study was to develop a comprehensive sponsorship model integrating Sport Involvement, Social Media Use, Beliefs about sponsorship, Sponsor's Sincerity, Awareness of Sponsors as well as traditional and electronic Word of Mouth intentions.

THEORETICAL BACKGROUND

Sport involvement could be characterized as a person's assessment of his/her engagement in a sport activity regarding being a focal part of her/his life, and one that offers both hedonic and symbolic benefit (Koo and Lee, 2019). In the sponsorship setting, it has been demonstrated that consumers' sport involvement positively influenced sponsorship awareness, anticipated business image, and willingness to purchase sponsors' merchandise (Koo and Lee, 2019).

The emergence of social media has profoundly impacted the delivery and consumption of sport. Sport industry marketers have long understood that social media have critical ramifications for sponsorship and provide an occasion to sponsors to interact and engage with target audiences. This research likewise tried to explore the impact of social media and internet use on sponsorship outcomes, a variable not intensively investigated in sport sponsorship context (Koronios and Dimitropoulos, 2020).

One additional factor examined in the of sponsorship context is sponsoring firms' intention that has focused on whether individuals anticipate sponsoring firms' motivations as either being true, for society; or self-serving, revenue driven (Tyler et al., 2019). Spectators' impression of the degree of sincerity of sponsor's intention is a critical piece of sponsorship reaction, and it ought to be examined into a holistic sponsorship model.

The crucial element in separating sponsorship from advertising is that the fan gets a sponsoring firm's message through the property in a "passion" mode, in contrast to an advertiser's message which is received through the media in an 'interference' mode (Cheong et al., 2019). Under this logical differentiation, an overall hypothesis is that the individuals form favorable or unfavorable beliefs regarding the benefits of sport sponsorship. As a result, beliefs about sponsorship could affect sponsorship's efficiency.

Word-of-mouth (WOM) communication has received a great deal of attention from marketing academics and practitioners alike. Widespread use of the internet for shopping, information gathering, and entertainment purposes has changed not only the ways that WOM can be studied and manipulated but also the very nature of the phenomenon (Breazeale, 2009). Sponsorship research until now, has taken into consideration only the traditional word of mouth intentions, ignoring its new electronic aspect. This paper will address that gap, examining sponsorship's effects on spectators' traditional (WOM) as well as electronic (e-WOM) word of mouth intentions.

The present study proposes a new framework for sponsorship research, based on a synthesis of the literature, examining - for the first time - the variables affecting spectators' traditional as well as electronic Word of Mouth intentions. Based on the literature, the following model and hypotheses are proposed:

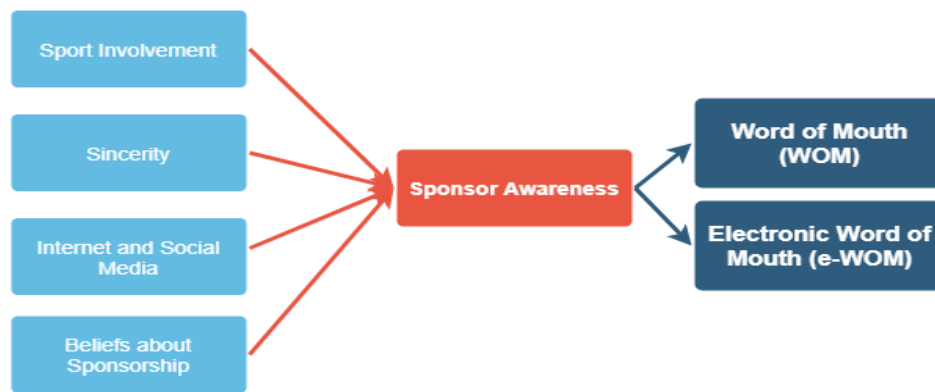


Figure 1. Proposed model

H1: Sport involvement is expected to affect respondents' awareness of sponsors.

H2: Sincerity of the sponsor is expected to affect respondents' awareness of sponsors.

H3: Social Media and Internet use by respondents is expected to affect their awareness of sponsors.

H4: Beliefs about sponsorship are expected to affect respondents' awareness of sponsors.

H5: Respondents' Awareness of Sponsors is expected to affect their traditional word of mouth intentions (WOM).

H6: Respondents' Awareness of Sponsors is expected to affect their electronic word of mouth intentions (e-WOM).

METHODOLOGY, RESEARCH DESIGN AND DATA ANALYSIS

A quantitative method was used for the purposes of the study and questionnaires were collected from participants and spectators of a major Taekwondo tournament, taken place in Athens, Greece. A total of 1,332 questionnaires were successfully completed and analyzed by SPSS and AMOS.

RESULTS, DISCUSSION AND IMPLICATIONS/CONCLUSIONS

The survey had a total of 1,332 participants (males, $n = 963$, 72.3 %, and female, $n = 369$, 27.7%). The majority of the participants ($n = 751$, 56.4 %) were between the ages of 23 and 41, while 19% ($n = 253$) were between the ages of 42 and 55. The factorial structure of the questionnaire was investigated using exploratory factorial analysis (EFA) and the Varimax rotation. The EFA stated that for all sizes, the index must be $KMO > 0.9$. On each of the seven scales, the variance of the results described by 71.94% of the model variance. All of the scales had Normed $\chi^2 < 1$, RMSEA < 0.1 and CFI > 0.9 , according to CFA. Moreover, all of the suggested theories were confirmed by the structural equation model (SEM) findings (H1-H6). The model also accounts for the statistically important impact of the sport involvement factor of the sport participation scale on sport awareness ($b = 0.742$, $p < .001$), as well as sincerity ($b = 0.691$, $p < .001$), internet and social media ($b = 0.813$, $p < .001$) and beliefs about sponsorship

($b=0.613$, $p<.001$) significant effect on sport awareness. In addition, the structural equation analysis indicates a statistically significant effect of sport awareness on word of mouth ($b=0.722$, $p<.001$) and electronic word of mouth ($b=1.298$, $p<.001$). These results shield light in the power of technology and social media nowadays on sports sponsorship. Finally, the model has values of ($\chi^2=0.873$, $CFI=0.916$, $NFI=0.930$, $RMSEA<0.1$).

Table 1: Structural Equation Model Weights

			Estimate	S.E.	C.R.	P	Label
Sponsor Awareness	<---	Sport Involvement	.742	.139	4.183	***	S
Sponsor Awareness	<---	Sincerity	.691	.214	2.131	***	S
Sponsor Awareness	<---	Social Media and Internet	.813	.426	7.355	***	S
Sponsor Awareness	<---	Beliefs about sponsorship	.613	.281	5.534	***	S
Word of Mouth	<---	Sponsor Awareness	.722	.178	3.736	***	S
Electronic Word of Mouth	<---	Sponsor Awareness	1.298	.483	9.937	***	S

S=support and R= reject

Keywords: sponsorship, awareness, word of mouth, e-word of mouth.

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SUSTAINABLE BUSINESS MODEL INNOVATION

A PROCESS PERSPECTIVE

Lars, Schäffner; Kaufmann, Hans - Rüdiger

Business Management, University of Applied Management Studies, HdWM, Mannheim, Germany

ABSTRACT

The concept of a sustainable business model is seen as a strong lever to make a purposeful contribution to sustainable development. In this regard, over the last decade, a lively discourse evolved. They are claimed to fulfill economic, ecological, and social goals better than other business models. However, only a theoretical conceptualization and the adaptation of established static management tools were achieved to a vast extent. Empirical studies mainly focus on cases of small companies and start-ups so far. How incumbent corporations implement them and what supporting factors are necessary remains unexplored. To close this gap, this work aims to illustrate Sustainable Business Model Innovation from the process perspective by suggesting an empirically validated model.

Based on a qualitative research design, ten semi-structured interviews with sustainable business experts were conducted and analyzed employing content structuring analysis. The results show that sustainability can no longer be seen as "nice to have" due to the interplay of major external factors in the firm's ecosystem. To survive in the long term, integration into all corporate decision-making processes must occur. Surprisingly, in contrast to the lion's share of the literature, experts do not perceive digitalization as a driving force. The added value to sustainable development is related to providing transparency and traceability. Furthermore, it is shown that companies have to go through a five-phase process of self-reflection and reorientation. A set of enabling and hindering factors could be identified along this process.

Keywords: Sustainable Business Model Innovation, Innovation Process, Enablers, Barriers, Business Experimentation

THE RELATIONSHIP BETWEEN KNOWLEDGE MANAGEMENT AND ARTIFICIAL INTELLIGENCE

Leoni, Luna¹; Gueli, Ginetta²

¹Dept. of Management and Law, University of Rome Tor Vergata, Rome, Italy

²Information and Knowledge Manager, Ragusa, Italy

ABSTRACT

PURPOSE

According to the European Commission (2021), Industry 5.0 “places the wellbeing of the worker at the center of the production process and uses new technologies to provide prosperity beyond jobs and growth while respecting the production limits of the planet”. In particular, Industry 5.0 calls for the adoption of a human-centric approach for digital technologies (including artificial intelligence) that requires an up-skilling and re-skilling of the workers, particularly in terms of digital skills, in order to be able to use these new technologies as well as an all-round ability to handle the numerous data and information provided by these technologies. All of this will have an impact on the knowledge management of organisations. In fact, recently, the ability to mine larger amounts of data, information and knowledge to gain competitive advantage is gaining more and more attention from both academics and practitioners. Specifically, it is argued that through the use of new digital technologies, the mining, management and dissemination of organisational knowledge will be more effective and efficient (Ferraris et al., 2019; Sousa and Rocha, 2019). However, it is still not clear *if* and *how* these new digital technologies – and Artificial Intelligence (AI) in particular – may practically help knowledge management (KM) within organisations. In fact, to the best of the authors’ knowledge, the relationship between KM and AI is still in an infancy stage (academically speaking, most of the manuscripts on these topics are conference papers and the like) and it is mainly investigated from a theoretical/conceptual point of view (e.g., Paschen et al., 2019). Thus, this paper aims to answer the call for a deeper understanding of the AI-KM relationship (Sanzogni et al., 2017). In particular, this investigation is based on the following research question:

RQ: How is artificial intelligence implemented in knowledge management processes within organisations?

METHODOLOGY

Data collection

In order to reach its aim, this paper is based on a qualitative approach that is particularly useful to describe, interpret, contextualise, and gain in-depth insight into specific phenomena. In particular, semi-structured interviews will be conducted (Ozcan and Eisenhardt, 2009; Richards and Morse, 2012; Yin, 1994) during 2021 with knowledge managers and knowledge experts belonging to organisations of different sizes and located in various parts of the world. In order to select the interviewees, an e-mail will be sent to all the knowledge managers/experts belonging to the researchers' networks in order to request their participation in the research project. Thus, all the professionals who give their consent will be interviewed, according to the principle of data saturation (Guest et al., 2006).

Data analysis

The in-depth analysis of data will begin through a cross-interview analysis, in which the insights that emerge from each interview will be compared with those from other interviews in order to identify similar constructs and themes (Ozcan and Eisenhardt, 2009; Eisenhardt and Graebner, 2007). In particular, a verbatim transcription process will be carried out for all the conducted interviews to improve reliability, validity, and trustworthiness of the research (Easton et al., 2000; MacLean et al., 2004; Seale and Silverman, 1997), following an explorative approach aimed at identifying, coding, and categorising the main data patterns (Charmaz, 2006; Mayan, 2009).

FINDINGS

On the basis of the results deriving from the interviews, the authors expect to be able to provide both theoretical and practical implications. In terms of theoretical implications, the results of this study will fill the gap in terms of empirical evidence of AI adoption in KM practices. In terms of practical implications, the research aims to go above and beyond the buzzwords and the current hype linked to AI and KM, in order to provide practitioners with a wider overview of the phenomenon that could help them in making more insightful business decisions. In particular, the results will provide knowledge managers and experts with concrete evidence in terms of: *i)* the most widespread applications of AI in KM; *ii)* the main advantages and disadvantages of the use of AI in knowledge processes; *iii)* best practices and failures of AI applications within KM practices; *iv)* terminology consistency when referring to AI tools; and *v)* presence (or absence) of a common path between practitioners in applying AI tools in KM practices.

ORIGINALITY

To the best of the authors' knowledge, this will be the first empirical investigation on the relationship between AI and KM whose results derive from direct interviews with knowledge managers and experts belonging to different organisations (in terms of size and industry) around the world.

Keywords: knowledge management; artificial intelligence; qualitative research; empirical research; knowledge manager; interviews; Industry 5.0; digital technology; best practices; lessons learned.

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CAN BAMBOO REPRESENT A GREEN DEVELOPMENT? ECONOMIC AND ENVIRONMENTAL ASPECTS OF BAMBOO CULTIVATION IN SOUTHERN ITALY

Lombardo, Emanuela; Galati, Antonino; Crescimanno, Maria

Department of Agriculture, Food and Forest Sciences, University of Palermo, Palermo, Italy

ABSTRACT

The climatic change has favoured the diffusion of exotic forest species and tropical cultivations in the European territory used for multiple purposes such as for food, wood production but also as bioenergy crops (Tuck et al., 2006; Sgroi et al., 2015; Testa et al., 2016). This is the case of the diffusion of bamboo plantations. Bamboo although is taxonomically a grass plant and often classified as “poor man's timber” (Buckingham et al., 2011), it was firmly included as part of the forest definition in FAO's 2015 Forest Resource Assessment. In general, at the global level, there is a growing interest in forest plantations considered important investment opportunities for profit generation, for building strategic assets, but also to address sustainable development challenges through the production of essential goods and services (Pra et al., 2019). We focus on the assessment of bamboo cultivation, considering its environmental and economic aspects in Southern Italy. In particular, an economic analysis of two case studies located in the regions of Basilicata and Calabria is carried out, considering the multiple products that can be obtained from bamboo, especially the production of shoots and the storage of CO₂ (see Table 1-2). Case study methodology is extensively utilised in the management literature, to understand specific characteristics and mechanisms of the business performance (Testa et al., 2020). Indeed, the two case studies are selected mainly for their peculiarities. In particular, the Company 1 is located in the province of Reggio Calabria and belonging to the Consortium Italy Bamboo (CBI), had collected the first products as early as the third year of planting the bamboo, while the Company in the province of Potenza, had already produced CO₂ capture quotas and sold them (Fig.1). From interviews with entrepreneurs and SWOT analysis on bamboo cultivation it can be inferred that to cultivate bamboo can be an excellent choice because it is an innovative crop re-entering that could generate a potentially the high-income green economy. Moreover, bamboo does not require the use of pesticides and purifies the air. Specifically, according to the owner of Company 2 the main motivation to cultivate bamboo is mainly economic-environmental, linked to the production and sale of carbon credits. Indeed, the agricultural company he represents has undertaken commercial relationships regarding carbon credits with the Lamborghini automotive industry. So, carbon credits can often compensate the opportunity costs of alternative land uses.

To summarize it seems that cultivation of bamboo represents an opportunity to diversify the production and at the same time to safeguard the environment protecting the soil from erosion, favouring water conservation and allowing for greater sequestration of carbon dioxide. Moreover, it would be desirable that the bamboo does not conflict with agri-food production, but it should valorise marginal and unproductive areas.

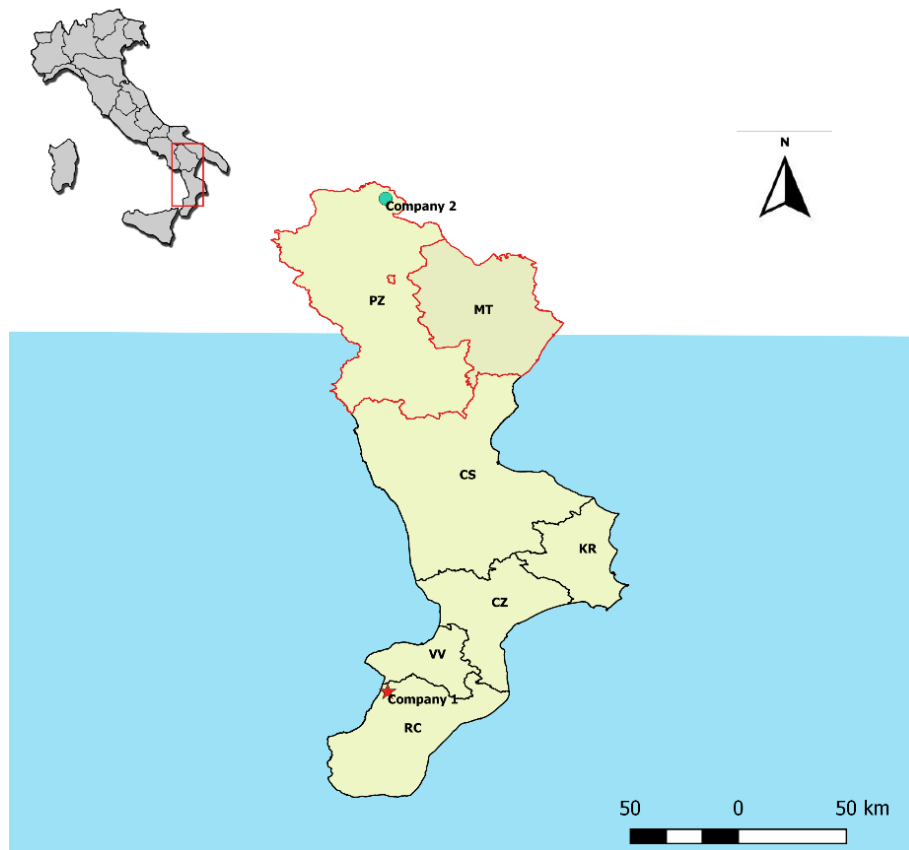


Figure 1. Location of case of studies: Company 1 (Calabria) and Company 2 (Basilicata)

Table 1. Main companies features

Items	Company 1 (Calabria)	Company 2 (Basilicata)
Location	Rosarno	Montemilone
Altitude	60 m a.l.s	165 m a.l.s
Total Company area	2 ha	44 ha
Other cultivations	Citrus	Olive
Bamboo cultivation area	1ha	35 ha
Bamboo planting year	2017	2016
Bamboo species	Phyllostachys edulis	Phyllostachys edulis
Soil type	Sandy	Clay
Plants quantity for ha	1200	1200

Table 2. Costs and revenues of bamboo planting and management (€/ha)

Items	Subitems	Company 1 (Calabria)	Company 2 (Basilicata)
Soil preparation (costs)	Tillage	700	200
	Harrowing	250	80
Plant (costs)	Purchasing plant	22.800	16.200
	Background fertilization	340	40
	Construction of perimeter containment ditches	120	-
	Bamboo planting	800	1.000
Management (costs)	Weed control	210	360
	Fertilization	450	260
	Irrigation	700	900
	Pruning/thinning	520	360
	Harvesting sprouts	400	350
Revenues	Shoots sold	4.100	-
	Carbon credits sold	-	9.050

Keywords: Phyllostachys edulis, bamboo cultivation, economic and environmental feasibility, Italy, green economy, carbon credit, innovative crop

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FOLLOW THE INFLUENCER: THE IMPACT OF THE PERCEIVED INFLUENCE OF THE YOUTUBERS ON GENERATION Z PURCHASE INTENTION

Lourenço, Ana Rita¹; Silva, Joaquim²

¹School of Economics and Management University of Minho, Braga, Portugal

²Interdisciplinary Centre of Social Sciences (CICS.NOVA.UMinho), School of Economics and Management University of Minho, Braga, Portugal

ABSTRACT

Marketing managers are changing their communication strategies by targeting digital and increasing investment in influencer marketing. The growth of social media has given media space to anonymous young people who have quickly become digital influencers reaching millions of followers by creating content on their social networks (Nouri, 2018). Previous research has demonstrated that digital influencers have more power and impact on young consumers' purchasing decisions than traditional celebrities (Djafarova and Rushworth, 2017; Friedman, Termini and Washington, 1976). YouTube is the leading social network used by young people (Awesomeness, 2017) and is there that they spend most of their time (Taylor, 2020). The connection between followers and YouTubers digital influencers tends to be strong, they consider them as friends (Swant, 2016), accessible (Hall, 2015), credible (Djafarova and Rushworth, 2017), and when it comes to making purchasing decisions, they take their opinion into account (Southgate, 2017). The impact of influencer marketing has been studied in various contexts such as eWOM, public opinion formation, brand attitude; on young people's purchasing decisions (e.g., Watts, Dodds and Dodds, 2007; De Veirman, Cauberghe and Hudders, 2017; Djafarova and Rushworth, 2017). However, to the best of our knowledge, the study of the reasons for the influence of digital influencers, in particular YouTubers, in young consumers is scarce (De Veirman, Cauberghe and Hudders, 2017; Aral, 2011). Based on the theoretical frameworks of social influence theory, source credibility theory, consumer decision-making process and theory of planned behaviour, this study aims to identify and estimate the dimensions of YouTubers' credibility as an influential source, which most affect consumers' perceived influence, attitude, and purchase intention. The study focuses on the cohort of consumers aged between 18 and 24 years old who are part of the so-called Generation Z (Bencsik, Juhász and Horváth-Csikós, 2016).

The questionnaire was designed based on tested scales from literature and was administered online through social networks, and a total of 1026 valid responses were obtained. Descriptive analysis and was performed with IBM SPSS Statistics 27. IBM SPSS AMOS 27 was used to test the hypotheses using the Covariance-based Structural Equation Modeling (SEM). A two-step SEM approach (Anderson and Gerbing, 1988) was followed to assess the overall model fit to the data and the scales' validity and to test the hypothesized relationships.

More than half of the participants were between 20-24 years old (54.6%), were female (57,8%) and in terms of education, 34.4% and 25.2% had bachelor degrees and master degrees. They accessed YouTube mainly through their smartphone, spent up to 1 hour and 30 minutes of their day watching videos, preferably at night. They watched videos for entertainment (75.2%) and to obtain information on things that interest them (60.1%) and liked to assist to "Music" (13.1%), "Comedy" (10.3%) and "Tutorials" (7.2%) videos.

The theoretical model presented a good fit to the data - $\chi^2 (452) = 1102.856$; $p=.000$; $\chi^2/df = 2.440$, $p=.000$; CFI=0.961; RMSEA =.048; $p =.752$; 90% CI [0.045, 0.052]; SRMR= 0.0537. All measures showed internal consistency, and convergent validity with Cronbach's alpha and Composite Reliability estimates above the threshold value of 0.70 and Average Variance Extracted (AVE) above 0.50 respectively (Hair *et al.*, 2014). Discriminant validity was also verified, with the square root of the AVE of all constructs being higher than the inter-construct correlations (Fornell and Larcker, 1981).

After validating the measurement model, the latent variable structural equation model was examined using a Maximum Likelihood Estimation (MLE) procedure to test the relationship between hypothesized constructs (Figure 1). Perceived Influence is the variable that has the highest explanatory power for Purchase Intention. The results also show that Attractiveness is the construct with the highest explanatory power of Perceived Influence, followed by the Quality of the argument. Attractiveness exerts the greatest positive influence on attitude towards YouTuber ($\beta = .263$, $p \leq .001$) and Quality of argument is the main variable explaining attitude towards YouTuber ($\beta = .619$, $p \leq .001$). Purchase Intention is explained to 49% by the independent variables, by perceived influence, and to a lesser extent by attitude towards the YouTuber. The relationship between attitude towards Youtuber content and purchase intention is not statistically significant. The results suggest the need to rethink the importance given to the influence of attitude in models based on the Theory of Planned Behaviour, and to include new variables that increase the ability to explain the intention and purchase behaviour of young people, such as the perceived influence from the evaluation of the credibility of the source. The observed relevance of the variables Attractiveness and Quality of the argument in the construction of the perception of influence provides clues for the actions of marketing managers and digital influencers. Marketing managers can benefit in the effectiveness of their marketing strategies if they include in the selection criteria of digital influencers a combination of factors such as physical appearance, technical knowledge, and communication qualities. These are also qualities that digital influencers must develop. Appearance is relevant, but it is not enough to build credibility in the young followers, who are increasingly demanding.

Keywords: Digital influencers, YouTubers, Source credibility, Generation Z, Purchase intention

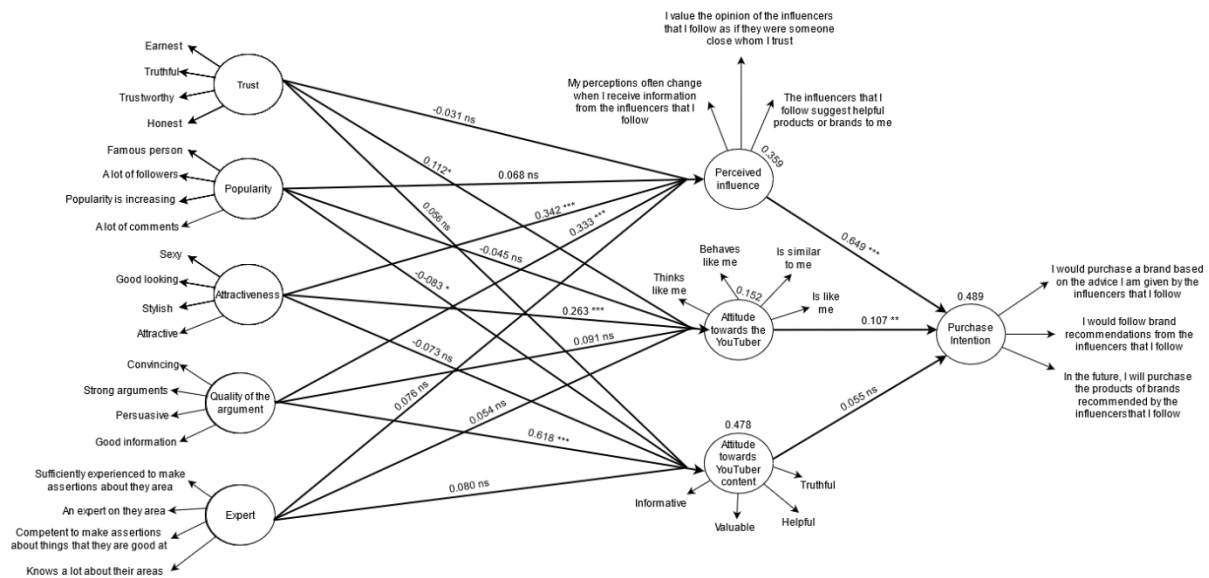


Figure 10. Proposed structural model.

Keywords: Digital influencers, YouTubers, Source credibility, Generation Z, Purchase intention.

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FACTORS AFFECTING FLEXIBLE WORKING AND WORK-LIFE BALANCE IN THE UK MANUFACTURING SECTOR.

Lynch, Laura; Kyriakidou, Niki

Leeds Business School, Leeds Beckett University, Leeds, United Kingdom.

ABSTRACT

This work examines the impact of flexible working arrangements (FWA) on work-life balance (WLB) in the context of the COVID-19 pandemic. Focussing on a case study organisation, it examines flexible working factors that affect its take up, such as demographic. It provides a definition of FWA and WLB, analysing how one affects the other over the course of the COVID-19 pandemic, and by using this to form an explanatory theory, recommends further opportunities for flexibility and improved WLB within the organisation.

The outcomes of FWA are explored, establishing the business case for encouraging employee-focussed flexibility. Extant work on WLB is assessed and consequently a theoretical framework is proposed (Figure 1). Taking an expansionary view of resources (Marks, 1977), underpinned by Hobfoll's conservation of resources theory (1989), the theoretical framework subscribes to instrumentalist theory which posits involvement in one life sphere can facilitate success in another. It is suggested that world events shape the attitudes of important actors within the employment relationship. In turn and influenced by Karasek's (1979) job-demands control model, Hackman et al.'s (1975) job characteristics model and self-determination theory (Rigby & Ryan, 2018), this forms an employee's level of choice. However, choice does not have a direct connection to the personal resources that dictate levels of WLB; instead, mediating factors shape the volume of resources an individual can draw upon, therefore influencing WLB.

Utilising a case study approach, a manufacturing, retail and hospitality business in Yorkshire, United Kingdom is examined. The business employs circa 1,600 people – around one-quarter of whom were based at home and continued to work during the pandemic. From this population, the empirical base of the study is 272 survey responses and focus groups involving 9 leaders from across the organisation.

The key findings of the research support for what is theorised; it is established that the COVID-19 pandemic has shifted attitudes of actors – managers in particular – leading to greater tolerance for the arrangements that work for an individual, meaning that they are more able to exercise choice. The identified mediators (the enactment of FWA, demographics, personal attributes, and role demands) have varying impacts on WLB, though how these mediators interact and affect resources when considered together provides additional opportunity for research. It is established that overall, the

COVID-19 pandemic has had a significant impact on FWA and attitudes surrounding them, and a moderate effect on reported levels of WLB. More specifically, it is shown that the enactment of informal FWA moderately improves balance further still.

Therefore, this work provides valuable guidance for employers particularly when dealing with crises such as global pandemics – that employee WLB can be improved in such instances by allowing them to exercise choice, including the enactment of informal FWA to better enable them to tailor their arrangements to support the deeply-individualised notion of WLB. It also makes a contribution to existing work given it shows that the link between choice and WLB is mediated by other variables such as demographics and levels of choice. It culminates in recommendations focussed on the case study organisation, with suggestions such as improved guidance on FWA parameters, a greater focus on WLB, and improving policies to support diversity, equality and inclusion all intended to support future WLB within the organisation.

TABLES AND FIGURES

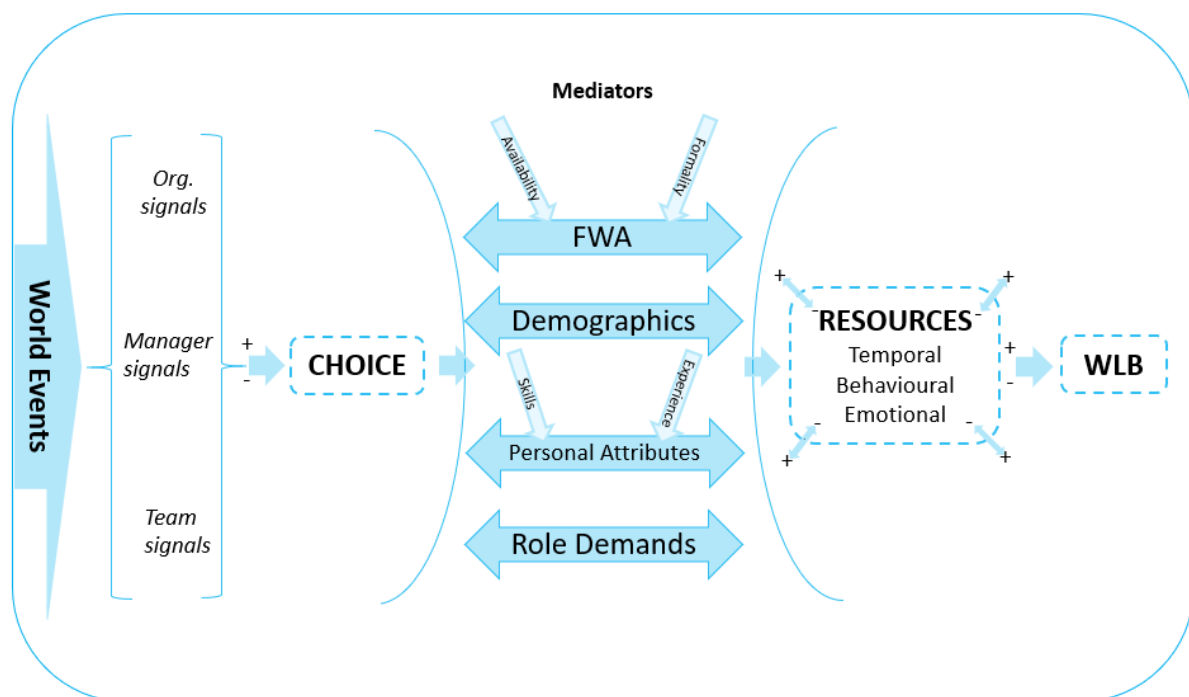


Figure 1: Theoretical Framework

Keywords: COVID-19, coronavirus, pandemic, flexible working, work-life balance, choice, gender, demographics, personal attributes, role demands.

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THE COMPETITIVE EDGE OF SMART CITIES: THE IMPACT OF THE TECHNOLOGICAL ADVANCEMENTS ON THE SMART CITY COMPETITIVENESS IN THE KNOWLEDGE FLOW AND THE HIGH-TECH COMPANIES' DEVELOPMENT

Marchesani, Filippo^{1,2}; Masciarelli, Francesca¹; Bikfalvi, Andrea²

¹Department of Management and Business Administration, University of Chieti-Pescara, Italy

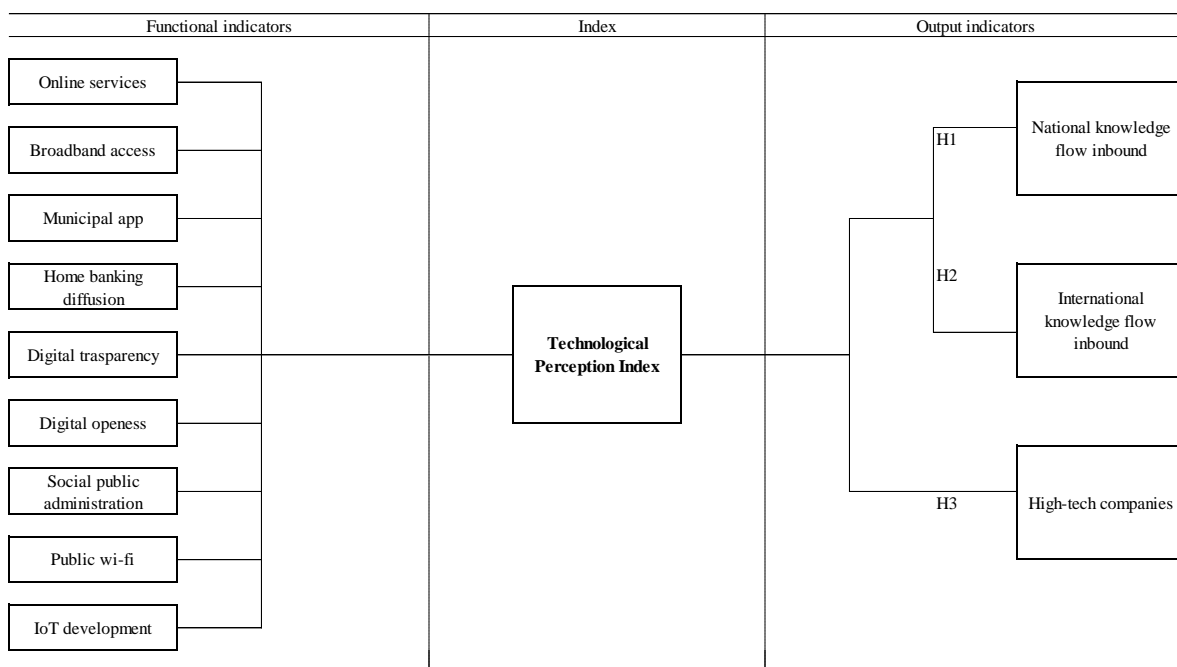
²Department of Business Administration and Product Design, University of Girona, Spain

ABSTRACT

In recent decades, numerous studies have shed light on the role of smart city development both nationally and internationally (Albino, Berardi and Dangelico, 2015). However, this evolution is still in a preliminary stage, and we need a more comprehensive understanding to improve the functionality and the development of this concept. Most studies are based on a theoretical framework analysis or case studies related to the implementation of smart cities concept. It is only in recent years that we have noticed an increase in quantitative studies that confirm or deny relationships that were initially theorized only (Christofi *et al.*, 2021). Based on technological development, smart cities are complex ecosystems that have the potential to impact several factors such as city liveability, economic development, and sustainability by combining people, processes, and data (Chatfield and Reddick, 2019). As a consequence, the technological advances in cities impact the profound changes taking place in society and businesses through the use of digital technologies (Chauhan, Agarwal and Kar, 2016) that impact at different levels such as city's strategies (Leitheiser and Follmann, 2020), organizational level (Nicholds *et al.*, 2017), governance (Paskaleva, 2011) and innovation (Chatterjee, Kar and Gupta, 2018). In this paper, we consider the technological development of cities from a broader perspective where we analyse how technological progress is perceived to explain its impact on the attractiveness of the city in terms of knowledge and high-tech firms (Figure. 1) The perception of technology by users is a very broad concept and, when referred to the city, it covers different areas and tools used as measurement indicators. For example, in the public sector, online services and ICT applications such as municipal apps and social media channels are often underutilised or do not effectively meet the needs of users and citizens (Gagliardi *et al.*, 2017). Those services have an impact on the perceived value of technology in terms of engagement and may be seen as a source of development and innovation. The development of technology and the promotion and attraction of knowledge and innovation in smart cities are fundamental to its development policies and growth as well as the role of knowledge is an engine for economic growth to support production and the generation of talent (Bakici, Almirall and Wareham, 2013). In terms of attractiveness of cities, the

technological development, the high level of services, and the competitive development of smart cities raise it to a dominant position on the national and international scene (Kumar *et al.*, 2016). The technological advance and the technological level not only impact services for the various stakeholders but also enables the city to compete on the global market by attracting new knowledge, innovative companies and capital (Nicholds *et al.*, 2017; Pittaway and Montazemi, 2020). This paper aims to investigate the impact of the perceived value of technology on the attractiveness of cities assessed in terms of knowledge flow and innovative start-ups and to contribute to the relatively underdeveloped empirical analysis of the impacts and dynamics of technological development in contemporary cities. We proceed according to the structure presented in figure 1, which synthesizes the conceptual and theoretical framework of this study. The perceived value of technology is explained and measured using eight indicators broadly covering the main characteristics of technological development in cities (Gagliardi *et al.*, 2017; Pittaway and Montazemi, 2020). We hypothesize a direct effect of these indicators on the national (H1) and international (H2) knowledge-based variables and on the development of innovative start-ups in cities (H3).

Figure 1: Theoretical framework



To test our conjecture, the research sample is based on the main 20 Italian cities ranging for 8 years period (2012-2019) and taken into consideration cities from north to south of Italy. Using a latent growth curve (LGC) we aim to test our framework and hypotheses. We decide to use LGC model because is usually adopt to standing a systematic change in panel design with longitudinal data and has the advantage of being a simple extension of the more general structural equation modelling framework (Caporale and Cerrato, 2006). This analysis will enable us to evaluate and measure the

various (and potentially related) factors that determine the attractiveness of cities on the basis of knowledge flow. In this way, we will also evaluate the creation of an innovative context for companies and start-ups.

The preliminary results confirm a relationship between the perceived value of technologies in cities and the cities' attractiveness in terms of national and international student flow but also impacts the creation of the innovative company in the urban area. The findings have several implications both for scholars and practitioners. From an academic perspective, the role of technologies as a driver of smart cities is considered an engine of economic development (Christofi *et al.*, 2021) and is directly related to the development of smart cities and their attractiveness. From a practical view, these results suggest politicians and policymakers could invest more in the technological development of the city to provide important drivers for the development of smart cities nationally and internationally.

Keywords: Smart City; Attractiveness; Technology; ICT; IoT; Knowledge; Innovation

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CITIZEN SCIENCE: EXPLORING THE UNDERLYING DIMENSIONS OF CITIZEN ENGAGEMENT AND VALUE CO-CREATION IN A BIODIVERSITY ONLINE PLATFORM

Marques, Diana¹; Silva, Joaquim^{1,2}; Machado, Raul^{3,4}

¹School of Economics and Management, University of Minho, Braga, Portugal

²Interdisciplinary Centre of Social Sciences (CICS.NOVA.UMinho), University of Minho, Braga, Portugal

³Centre of Molecular and Environmental Biology (CBMA), Department of Biology, University of Minho, Braga, Portugal

⁴Institute of Science and Innovation for Bio-Sustainability (IB-S), University of Minho, Braga, Portugal

ABSTRACT

Citizen Science (CS) is a relatively old term gaining a renewed strength, as policy-makers, scientists and civil society acknowledge its potential for democratisation of Science (Hecker *et al.*, 2019), and contribute to addressing sustainability challenges (Fritz *et al.*, 2019). By involving laypeople in scientific projects not as subjects or aids but as active and equal partners throughout the research process, CS yields proven educational, scientific, social and political benefits, as Academia and Society work together to successfully tackle local and global challenges (Den Broeder *et al.*, 2018).

In all co-creational processes – in which CS initiatives are included – engagement by all actors is mandatory. Engagement is commonly perceived as a multidimensional construct of voluntary and motivational nature (Hollebeek *et al.*, 2019). In CS initiatives, citizen engagement is central for success as there is no citizen science without citizen action. Despite the great body of knowledge on CS, research on this topic is mainly focused on measurable elements of participation behaviour and on learning outcomes, neglecting integral features of cognitive, affective, behavioural and social dimensions of engagement (Phillips *et al.*, 2019); as well as how participants, as beneficiaries, perceive the value of these projects. This work aims at advancing the understanding of citizen engagement, thus informing future project designs and strategies to promote fruitful collaboration between researchers and lay citizens. Given the co-creational purpose and interactional nature of CS, it seems natural to analyse it through the perspective of service-dominant logic (S-D logic), which may provide a valuable contribution to the advancement of CS practices and their success due to the insights on social networks and service systems it has to offer.

Considering the interactional and contextual nature of engagement, the phenomenon is addressed through a holistic analysis, acknowledging distinct individual and subjective perspectives, in line with a mainly interpretive research approach. A case study was conducted on an online biodiversity monitoring platform (biodiversity4all.org), in which participants upload and identify hundreds of

thousands of living beings photographs, thus allowing to collect large amounts of species distribution data, contributing to scientific progress and community awareness. Through semi-structured interviews and digital materials triangulation, a comprehensive image of citizens' engagement with this platform was drawn.

Results show (i) how intrinsic and extrinsic motivations combine to promote the beginning and continuity of engagement; (ii) in which ways engagement is manifested by each participant; and (iii) the value that is being co-created by this interaction, as determined and perceived by participants. Data analysis, guided by the customer engagement framework suggested by Hollebeek *et al.* (2019), indicate that social interactions and platform functionalities potentiate citizen engagement in co-creative practices through knowledge sharing, learning and resource integration. These co-creative interactions generate new resources that are applied outside the platform. Participants consider that scientific, educational, social and personal value is co-created due to their engagement with the platform, depending on their personal and professional context.

CS potential benefits rely on the meaningful interaction of citizens with scientists so as to learn from them, but also to improve scientific research with their first-hand perspective on the most pressing societal issues. The understanding of the underlying dimensions of citizen engagement provides cues to properly design projects that participants value and feel motivated to participate, potentially increasing the chance of success and adoption.

Keywords: value co-creation; knowledge co-production; resource integration; citizen engagement; motivations; citizen science.

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A STUDY ON FOMSUMER'S POST PURCHASE RESPONSE.

Morsi, Nada¹; Sá, Elisabete²; Silva, Joaquim²

¹School of Business and Management, University of Arab Academy of Science & Technology, Alexandria, Egypt

²Interdisciplinary Centre of Social Sciences (CICS.NOVA.UMinho), University of Minho; School of Economics and Management, University of Minho, Braga, Portugal

ABSTRACT

Fear of Missing Out (FoMO) can be defined as an emotional experience felt by individuals who fear missing both self and socially affirming events, lifestyles and products (Mcdermott, 2017). When persons become aware that these fleeting favorable and self-relevant experiences are taking place in an environment from which they are absent, they experience a negative affective state (Hayran *et al.*, 2016), leading them to imitate the behavior of others out of fear of being left out (Kang *et al.*, 2019; Kang *et al.*, 2019). FoMO is considered a powerful motivational force (Wiltermuth and Gino, 2013) to the extent that it has been recently used as an appeal by companies to trigger purchasing intentions and successfully influence purchasing decisions (Abel *et al.*, 2016; Argan and Tokay-Argan, 2018; Argan *et al.*, 2018; Aydin *et al.*, 2019; Çelik *et al.*, 2019; Hodgkinson, 2019; Kang *et al.*, 2019; Kang and Ma, 2020; Kang *et al.*, 2019). Consumers whose purchase decisions are driven by FoMO have been labeled as Fomsumers (Argan *et al.*, 2018).

While there is some knowledge about the triggering effect of marketing FoMO appeals on the Fomsumer's purchasing decisions, a research gap exists concerning the understanding of how this prevalent recent trending phenomenon affects the consumers' post-purchase responses (Argan and Tokay-Argan, 2018; Hodgkinson, 2019). This is relevant in as much as it has been argued that FoMO appeals might produce negative long-term consequences (Abel *et al.*, 2016; Argan *et al.*, 2018; Çelik *et al.*, 2019; Conlin *et al.*, 2016; Hayran *et al.*, 2016; Hodgkinson, 2019; Kahn and Louie, 1990; Kang *et al.*, 2019), which is at odds with the companies' strategic goal of promoting long-term relationships with their customers. Thus, an ongoing research is being implemented aiming at furthering the knowledge about the role of FoMO in the consumer purchase decision process and, specifically, analyzing its post-purchase cognitive, emotional and behavioral consequences. The focus of this exploratory research is on the impersonal commercial FoMO entailed in advertising.

Interviews with consumers, using the Critical Incident Technique, are being conducted to gain in-depth view into FoMO and FoMO's role in consumer purchase decision types and further understand the consumer post-decision cognitive and emotional states and their behavioral intentions. Thus, the present study will contribute to deepen the knowledge of the FoMO phenomenon within the consumer behavior context and to enhance the understanding of the Fomsumer behavior, specifically post-

purchase behavior. It aims at appraising the post-decision emotional, cognitive, and behavioral responses resulting from purchase decision types stimulated by FoMO appeals, to explore and theorize on the relationship between FoMO appeals and different types of purchase-decision. Practically, the study will provide companies and advertisers with a clear insight into the long-term effect of using FoMO appeal, as well as guidance on how to minimize the negative consequences of using such appeal when promoting their offerings. The study is expected to find out the most important post-purchase variables that are affected by FoMO appeal. The preliminary findings show that there are short term positive post-purchase consequences, but negative consequences of using FoMO appeal in the longer run.

Keywords: Fear of missing out, FoMO, FoMO appeal, Fomsumer, Consumer Behavior, Post-purchase behavior, Buying-decision.

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SUSTAINABILITY IN ITALIAN SPORT FEDERATIONS. MANAGING STRATEGIC HUMAN RESOURCES IN ACHIEVING THE SUSTAINABLE COMPETITIVE ADVANTAGE

Mura, Rita; Vicentini, Francesca; Portaluri, Giorgio

Dep. of Movement, Human and Health Sciences, University of Rome "Foro Italico", Rome, Italy

ABSTRACT

This research focuses on exploring the role of human resources in order to develop a sustainable approach in organizations to address the challenges of the environmental sustainability. In particular, the research analyses the role of the human resources management in sports organizations - and more specifically sport federations – in order to achieve the sustainable competitive advantage.

In addressing this aim, the research adopted the Natural Resource-Based View perspective (hereafter, NRBV) (Hart, 1995; Hart and Dowell, 2011) that draws attention to environmental practices regarding sustainable competitive advantage. According to the NRBV, sustainable competitive advantage is achieved when a firm's resources are associated to specific strategic capabilities, such as pollution prevention, product stewardship and sustainable development (Hart, 1995). To develop these strategic capabilities, employees should get strategically involved – at different levels -, and organizations should highlight how environmental issues are taken as a strategic value. Consequently, human resources policies and practices should be considered critical to organizations in order to achieve sustainable competitive advantage, because organizations would be able to incorporate sustainable habits into their routine and processes through HR policies and practices (Dubois and Dubois, 2012). Environmental strategies are strictly connected with each other and they are sequential processes: 1) pollution prevention represents the first step, subsequently 2) product stewardship can be developed, and, last, 3) sustainable development can occur (Hart, 1995; Hart and Dowell, 2011). The sport sector is not free from environmental concerns and sport organizations (in particular the National Sports Federations) are called to play an important role in using resources and adopting a sustainable approach for the sake of the environment. The increased societal focus on issues of sustainability and the drive by many organizations to implement environmental issues has stimulated scholars also within the field of sport management. However, there is less focus on the issues of environmental strategies and the sustainable competitive advantage in National Sports Federations (hereafter, NSFs). Given this premises the study analyzed sport federations in relation to their important role within the Italian sport system. Due to the heterogeneous frameworks of NSFs, our study divided the 44 Italian Sports Federations into three clusters in relation to the size related to the number of individual members that each federation counted (CONI, 2017). A purposive sampling was carried out: the Italian

Motorcycling Federation (IMF), the Italian Golf Federation (IGF), the Italian Cycling Federation (ICF), Italian Winter Sports Federation (IWSF). Semi-structured interviews were carried out. The interviewees represented the NSF's senior executives responsible for creating and implementing their organization's environmental strategies and NSF's HR managers.

Results demonstrated how the federations analyzed in this study, have adopted different sustainable strategic approaches in managing human resources. The pollution prevention and product stewardship are considered important strategic capabilities. For instance, two NSF's created a specific team or internal unit, dedicated to environmental sustainability. A "sustainability team" represents a primary driver for strategic changes to an organization's environmental practices. The cross functional sustainability team is often comprised of internal organizational members from across the organization. They are charged with developing and conducting a variety of operational changes, organizational policies, and daily/strategic practices. "Their position allows them to act as the leaders of strategic environmental changes" (Pfhali, 2010, p. 44). In addition, the sustainability team stimulates a multi-stakeholder approach to the federation's partners (and consequently it pursues sustainable and lasting growth). In this vein, the Italian Golf Federation has set up a scientific technical committee made up of professional experts belonging to internal (and external resources) which support sports associations in their environmental activities. At the same time the Italian Motorcycling Federation established the "Environment Committee" in order to develop specific programs and strategies on environmental sustainability in 2017. Its activity is aimed at increasing the environmental sustainability level in motorcycle sports associations during the races, regarding different areas: soil protection, chemical contaminations of soil, cleaning of motorcycling equipment, atmospheric emissions, energy consumption, the use of fuel, protection of natural habitats. It was an important organizational change within the federation, testifying to increased sensitivity on the part of management with respect to environmental sustainability issues as well as awareness that only with an ad hoc team the environmental pressure of motorcycling activity could be better managed. The effective action of the strategic dimension in some federation has been completed with the establishment of a specific figure aimed at supervising the sustainable compliance. This person has specific skills, training and experience as well as a specific personal interest in the management of environmental issues. In order to improve their strategic asset, the federations focused on the staff knowledge and education by organizing educational and training programs addressed to internal (staff federation) and external resources (staff sports associations and others). This is important because the competence acquired through the involvement of employees to prevent pollution is a resource that cannot be acquired or imitated by competitors. In sum, results demonstrated that the main NSF's reasons for implementing environmental strategies and policies are linked to awareness of the importance of developing

sustainable programs for increasing the value of the environmental dimension of their action. For instance, the adoption of specific green technologies in the sports facilities related to the federations, has been demonstrating useful for several years in order to contribute to a low carbon economy through the installation of on-site renewable energy (this means substantial cost savings as well as important reductions in GHG emissions). But the acquisition of green technologies by themselves is not enough to guarantee a sustainable competitive advantage (Hart, 1995) and for this reason, NSF's implemented strategic and effective solutions managing human resources, by planning and implementing practices and policies that increase the federation's scope of skills and capabilities aligned with strategic goals. Sustainability presents a significant and growing challenge to the sport industry, especially outdoor sports (Orr & Inoue, 2019) and sports federations could offer a significant contribution in enhancing environmental concern within the community.

Keywords: Natural Resource Based View; sport organizations; natural environment; human resource management; sustainability; sustainable competitive advantage

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GREEN PURCHASE BEHAVIOR: A SYSTEMATIC REVIEW

Nascimento, Jorge; Loureiro, Sandra Maria Correia

ISCTE - Instituto Universitário de Lisboa and BRU (Business Research Unit), Lisbon, Portugal

ABSTRACT

Environmental sustainability is one of today's most urgent concerns, on which human consumption is considered to have substantial impact. As a result of the ecosystems' over-exploitation, the world faces unprecedented consequences such as greenhouse effects, climate change, wildlife extinction, air, soil and water pollution (Barbarossa and de Pelsmacker, 2016; Liobikienė *et al.*, 2016; Rausch and Kopplin, 2021). The change into sustainable consumption constitutes a fundamental opportunity for reducing our impact and for economic growth, as the emerging consciousness increase the demand for green product innovations (Han *et al.*, 2017; Olson, 2013). As a long trail of theories explores the motives behind this complex phenomenon, many of the evidence point towards a significant gap between consumer concerns and actual behavior, with many studies only able to predict purchase intention, as further confirmed in a set of eight systematic reviews and meta-analysis (Bamberg and Möser, 2007; Groening *et al.*, 2018; Klöckner, 2013; Li *et al.*, 2019; Loureiro *et al.*, 2021; Ravis *et al.*, 2009; Sheppard *et al.*, 1988), which together encompass 292 different data tests, a combined sample of 59,550 observations and over 1,100 peer-reviewed documents.

Aiming to tackle this well-documented gap, a systematic review was conducted using (Christofi *et al.*, 2017; Tranfield *et al.*, 2003). Our objective is to contribute towards a better understanding of what drives Actual Green Purchase Behavior (AGPB) by: (i) gathering a comprehensive collection of meaningful contributions; (ii) discussing emerging trends, dominant latent topics and constructs; (iii) synthesizing the main findings, gaps and contradictions. Database search for English peer-reviewed articles, was completed across all related business, social and environmental sciences on Scopus/Web of Science (WoS), not restricted to any specific publication period.

Database	Search strings	Potentially relevant articles	Combined set	Extracted for selection	Identified in final analysis
WoS	Related with PEB/GPB	1,893	595	777	183
	Related with determinant factors	12,745			
	Environmental-science journals	251	251		
Scopus	Related with PEB/GPB	13,415	623	777	183
	Related with determinant factors	20,544			

Table 1. Results from database search.

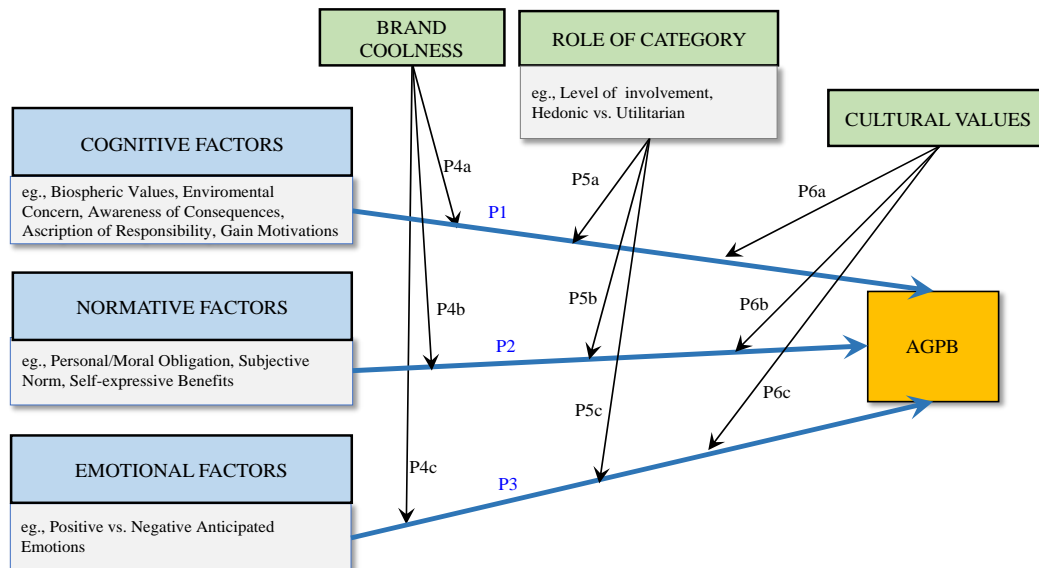
In the initial set, 777 articles were extracted, after merging databases and removing duplicates. This number was reduced to 183 by the processes of title, abstract screening, and full-text reading. Final selection criteria were adapted from literature (Loureiro et al., 2021): (i) article fit with the research goals; (ii) robust use and development of theory within present literature; (iii) logical theory-methods-data flow; (iv) relevance of practical and theoretical contributions.

The theories of Planned Behavior, Value-Belief-Norm and Norm Activation are the most influential, with their appropriateness verified across a widely diverse of PEB activities, mainly using quantitative methods. Despite the sizeable trail of research using these rational-based models, concerns are raised about their sufficiency (Liang *et al.*, 2019; Perugini and Bagozzi, 2001; Sheppard *et al.*, 1988) and thus additional influencers are suggested for further research, yet to be integrated and validated empirically into a single conceptual model.

Three main types of concepts are identified as able to drive AGPB: cognitive, normative and emotional factors. Possessing a high level of knowledge has been found to exert influence on green behavioral processes (Rausch and Kopplin, 2021), which seems to be interconnected with the notion of environmental care (Policarpo and Aguiar, 2020) and with evaluating the perceived sum of benefits (Hamzah and Tanwir, 2021; Rezvani *et al.*, 2018). On the other hand, the debate between altruistic norms and complying with socially appropriate forms of conduct, is one the main topics of discussion, with both personal and social norms described as strong motivational basis for behavior context (de Leeuw *et al.*, 2015; Stern, 2000). Moreover, addressing the lower predictive value of cognitive and normative constructs, when attempting to explain actual behavior instead of intention, recent evidence suggests that the influence of emotions can outweigh cognitions (Liang *et al.*, 2019) – or better yet, complement them - and ignite consumer decision making (Bagozzi *et al.*, 1999; Han *et al.*, 2018). Affective beliefs provide the required motivational content (Bechara *et al.*, 2000; Perugini and Bagozzi, 2001) to trigger individual's action, as also supported by neuroscience. Based on the present discussion, we propose the following propositions: **P1:** Cognitive factors are positively associated with AGPB; **P2:** Normative factors are positively associated with AGPB; **P3:** Emotional factors are positively associated with AGPB.

Additional factors were found to influence AGPB, such as the coolness of brands, the role of category and cultural values. Regarding brand coolness, its role in activating *passionate desire* is demonstrated in the context of luxury fashion brands (Loureiro *et al.*, 2020) and established as a positive quality, related to how brand personality resonates to consumers. Its specific dimensions were revealed and tested in cross-country studies, through an empirically confirmed scale (Warren *et al.*, 2019). The role of category is another factor to examine (Liobikienė *et al.*, 2016; Rezvani *et al.*, 2018), with evidence of consumer response to vary accordingly across three distinct categories of sustainable products (Rahman, 2018).

Furthermore, it seems appropriate to assume that most aspects of consumer behavior are culture bound (de Mooij and Hofstede, 2011). Based on those findings, we suggest that: **P4**: Brand Coolness moderate the relationship between Cognitive (4a), Normative (4b), Emotional factors (4c) and AGPB; **P5**: Product Category role moderate the relationship between Cognitive (5a), Normative (5b), Emotional factors (5c) and AGPB; **P6**: Cultural Values moderate the relationship between Cognitive (6a), Normative (6b), Emotional factors (6c) and AGPB.



Emotional factors (6c) and AGPB.

Figure 1: Conceptual framework

In summary, we argue that scientific knowledge and sustainable marketing fields would benefit from examining actual behavior, instead of purchase intentions, as a complex structure of barriers, motivations and intervening factors may be influencing (or blocking) the conversion of environmental concerns and attitudes into actions.

For that effect, this study is unique because it explores an original set of topics, reviewing, and categorizing an unprecedented collection of suitable contributions from behavioral science, environmental and management literature. Based on the main theoretical arguments and empirical evidence available, we have uncovered the key elements which we believe can explain actual green purchase behavior. A new conceptual framework is proposed, which is - to be the best of our knowledge - the first to combine emotional, cognitive, and normative processes, while integrating new moderator effects often suggested in recent literature.

We expect to assist researchers in conceptualizing different means of influencing sustainable consumer behavior and to stimulate future research, which can further explore and test the propositions here suggested, for a more comprehensive perspective on this domain. Moreover, new implications will be shared for the implementation of more effective managerial practices, communication strategies, social

marketing campaigns and community interventions, for both business and non-for-profit organizations, useful for a diverse group of stakeholders such as policy makers, corporate and opinion leaders.

Finally, we hope that our study can serve as a resource for both academic researchers and marketing practitioners seeking to further understand and advance the field of green marketing. Marketing plays a large role in influencing individual concerns and commitment with reducing impact on the environment, and thus can promote the achievement of customer needs, business goals and sustainable development at same time, without compromising among them, re-defining its own role, and embracing the new paradigm as opportunity for a more viable future.

Keywords: pro-environmental behavior, green purchase behavior, green products, sustainability, systematic review, cognitive, emotions, norms, cultural values, brand coolness

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ABOUT FINLAND AS A FOREIGN TRADE PARTNER

Nikolaev, Sergey V.¹; Besharova, Adilya R.¹; Murtuzaliev, Sergey S.¹; Dianova, Valentina Yu.²

¹Department of World Economy, Plekhanov Russian University of Economics, Moscow, Russia

²Department of International Business and Customs, Plekhanov Russian University of Economics, Moscow, Russia

ABSTRACT

The article tells about the peculiarities of the Finnish economy and its foreign trade. The Finnish economy is one of the richest economies in the European Union with a high level of GDP per capita. She has excelled in many areas of the industry. For example: food processing, shipbuilding, mechanical engineering and metallurgy. Also, a large amount of income is brought by Russian tourists who come to the country to buy clothes, equipment or food. Finland is a promising partner for Russian companies. The potential for cooperation has not been exhausted, and over time, new prospects are opening up. Finland is actively importing Russian oil and gas. Bilateral foreign economic cooperation between Russia and Finland has a historical basis and a modern superstructure that must be taken into account.

INTRODUCTION

The best practices and practice of development in Finland of traditional institutional mechanisms (first of all, public-private partnerships) deserve special attention, providing additional integration interaction between various business entities, decision-making centers (first of all, national, regional and local government institutions). and management), scientific and educational institutions, the expert community, which forms the competitive advantages of this state at the global and regional levels, allows to promote innovative business ideas and practices.

FINLAND'S ECONOMY

Finland, as a state located in Northern Europe with an area of 339.1 thousand square kilometers and a population of 5.6 million people, is one of the countries with a developed and competitive economy and living standards. At the end of 2019, the country's GDP amounted to 269.4 billion US dollars (at purchasing power parity - 283.9 billion), per capita - 51.4 thousand US dollars.

In 2020, GDP growth was 1.1%, and inflation - 1.8%. Among the sectors of the economy, the share of industry in GDP reaches 74%, the service sector - 24%, agriculture - 2%. Foreign trade turnover

amounted to USD 133.5 billion. At the same time, the volume of imports of 67.9 billion exceeded the export indicator by 2.3 billion US dollars (Suomi Lukuina, 2020).

Key export items include wood processing and pulp and paper products, telecommunications and transport equipment, petroleum products, and shipbuilding products.

In 2020, among the main export partners, it is necessary to single out, first of all, the EU member states: Germany (13.5%), Sweden (10.4%), the Netherlands (6.5%), i.e. Finnish exports are EU internal exports. The share of the United States in Finnish exports is 8.3%, the PRC 5.2%, and Russia 5.2%.

The commodity structure of imports is dominated by raw materials (primarily oil and oil products, natural gas), vehicles, and medicines.

In 2020, the main import partners among the EU member states are Germany (15.4%), Sweden (11.0%), the Netherlands (4.6%). The shares of Russia and China are 9.7% and 9.0%, respectively.

According to the experts of the Finnish-Russian Chamber of Commerce, one of the continuing trends in the foreign economic sphere of Finland is the tough rivalry between Russia and the PRC for the fifth place in the ranking of the largest foreign trade partners of Finland (News from FRTP, 2019).

FINNISH LEGAL REGULATIONS AND LAWS

At present, in Finland, as in other EU member states, normative legal regulations of the supranational level (for example, regulations, directives, decisions) apply along with the norms of national law, while national regulations (laws, regulations, etc.) developed in accordance with EU legislation.

For example, the basis of Finnish legislation that provides customs and tariff regulation when importing into its territory is the following regulatory legal acts, namely the EU Customs Code and the Unified Customs Tariff (TARIC, 1987).

For imported goods from third countries, including Russia, Finland applies the Common Customs Tariff, which is a set of customs duty rates in accordance with the EU Combined Commodity Nomenclature. The unified customs tariff classifies goods taking into account the measures of trade policy and tariffs applied in the territory of the said integration economic association. The bulk of customs duties (up to 90%) levied in the EU member states are ad valorem (Guide for business: Finland - Russia's economic partner, 2021).

In accordance with the decisions of the EU, Finland can impose a ban on the import or control over the import of goods for safety reasons, environmental protection, with the introduction of technical, sanitary, phytosanitary measures. The import ban may apply to certain exporting countries or to all countries outside the EU.

The main Finnish laws in the field of attracting foreign capital and legal acts include laws on joint stock companies, competition, and the securities market. At the same time, in accordance with the

current national legislation, foreign persons (both individuals and legal entities) when making investments in the Finnish economy are provided with national treatment with the exceptions provided for in the relevant intergovernmental agreements, as well as taking into account certain restrictions related to issues in the field of defense and safety.

FOREIGN DIRECT INVESTMENT IN THE FINNISH ECONOMY

On average, about 200 companies with foreign capital are established in Finland every year. The most popular sectors for foreign direct investment are ICT, business services, healthcare, retail and clean technology.

In particular, there is an increasing dynamics of the appearance of companies with foreign capital in Finland. So, for example, in 2014 their number was 229, while in 2015 - 265, in 2016 - 270, in 2017 – 336 (Kiander, J., Pekkarinen, J., Vartia, P., Ylä-Anttila, P., 2005).

In addition, foreign investments play a significant role in the social and economic development of Finland: according to experts, companies with foreign capital in general provide jobs for about 16% of all employed in the country.

As regards the peculiarities of the regulation of foreign investment in Finland, it should be noted that the creation of a favorable environment for attracting investment in various sectors of the economy is one of the priority tasks of the national policy of this state.

Thus, under the Ministry of Employment and Economy of Finland, the Invest in Finland agency has been created, which is engaged in attracting foreign investment to the country. Among the main tasks of this structure is, together with representatives of the Finnish regional development centers, to provide assistance to foreign companies in the implementation of their own or jointly with Finnish organizations projects in Finland.

FINLAND IN THE WORLD ECONOMY

Finland's integration into global value chains has allowed it to take advantage of large-scale network structures of international production, scientific and technical cooperation.

According to the experts of the Finnish research center of economics ETLA, the high share of intermediate products supplied by Finland to the global market indicates the high degree of integration of Finnish enterprises into global value chains, and the role of Finland as a kind of subcontractor for enterprises in the territory of USA and China. At the same time, Finland satisfies most of the international demand through imports necessary for its own production in the interests of all links in specific global value chains.

As part of export support and internationalization of the achievements of the national economic system, the Finnish government has introduced the so-called Team Finland network, covering various entities and forming a separate institutional subsystem. It includes specialized authorities (the Ministry of Foreign Affairs, etc.), foreign missions and trade missions, and higher educational institutions. Currently, the Team Finland representative network provides interaction between government and management authorities, scientific, research and production associations, representatives of the expert community with foreign and transnational innovative companies.

Starting from March 2020, the functioning of the national economy of Finland in particular and the global economic system as a whole was significantly affected by the spread of coronavirus infection and, as a result, the adoption of restrictive (including quarantine) measures. Among the negative consequences for the national economy, one should note a decrease in GDP from 1.5 to 4%, export operations and a decrease in consumer demand, and a break in production chains.

Subsequently, measures were approved to support the economy totaling more than 15 billion euros, among which the following should be noted:

- an increase in current government spending by EUR 400 million, including to support tourism companies and the so-called "creative" industries through Business Finland, small and medium-sized enterprises through regional centers of economy, transport and the environment;
- the allocation of additional loans and guarantees to the Export Credit Agency Finnvera (up to 12 billion euros);
- ensuring financing of companies' projects and their support through direct co-investment from TESI;
- financial assistance to the national airline Finnair.

Thus, despite its insignificant size in terms of territory and population, limited in certain raw materials, Finland still remains an important participant in economic processes at regional and international levels.

In addition, the best practices and practice of development in Finland of traditional institutional mechanisms deserve special attention, providing additional integration interaction between various business entities, decision-making centers, scientific and educational institutions, the expert community, which forms the competitive advantages of this state at the global and regional levels, and allows to promote innovative business ideas and practices.

As noted earlier, Russian-Finnish relations in the economic sphere are based on the historically established (primarily in the Soviet period) and improving at the present stage, the regulatory legal framework and the functioning of the relevant institutional structures.

Along with this, the activities of other institutional structures from both the Russian and Finnish sides also deserve special attention.

In particular, the previously mentioned Russian-Finnish Business Council, which has been operating since May 2010, plays an important role in the development of Russian-Finnish cooperation.

Thus, the activities of the Finnish-Russian Chamber of Commerce, created in 1946, which has offices in Finland (Helsinki) and in three Russian cities (Moscow, St. Petersburg and Yekaterinburg) is focused on assisting the development of trade and scientific -technical ties between the two countries, as well as related professional cooperation (Nikolaev S.V., Murtuzalieva S.Yu, 2021).

Despite the large-scale information campaign promoted by the United States and its allies, including in the media, and sanctions pressure, it should be noted that Finland has issued all the necessary permits for the implementation of the important interstate cross-border infrastructure project "Nord Stream - 2".

CONCLUSION

The analysis of the available information indicates that the following are among the most promising areas for the further development of bilateral Russian-Finnish relations:

- reaching the pre-sanctioned level of trade, economic and investment cooperation;
- overcoming the negative consequences of sanctions on national economic systems (up to the cancellation of previously imposed sanctions and counter-sanctions);
- overcoming the negative consequences of cross-border, national and regional restrictions caused by the spread of coronavirus infection;
- completion of previously adopted programs of cross-border cooperation and the development of proposals for the development and adoption of new ones, taking into account the analysis of the achievements and results of specific implemented projects (primarily, infrastructure, etc.);
- using the competitive advantages of integration groups (for Finland - the EU, for Russia - the EAEU) to create so-called jumpers, channels and areas (spheres) of interaction between them;
- mutual transfer of highly qualified specialists in public administration and entrepreneurship within the framework of individual pilot projects (primarily, within the framework of cross-border cooperation programs);
- further development of the elements of the institutional system that ensure monitoring of entrepreneurial and investment activity in Russia and Finland (for example, the Trade Mission of Russia in Finland and the Finnish-Russian Chamber of Commerce, etc.).

Keywords: Finland, exports, commodity structure, imports, foreign trade turnover, domestic exports, EU.

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THE NEW AREA OF CORONAVIRUS AND NEW BUYING STRATEGIES (RFID TECHNOLOGY) IN WINE BUSINESS.

Nomikou, Maria-Georgia¹; Konstantinou, Panagiota¹; Stathakis, George²; Nomikos, Spyridon¹;
Mountzouri, Athina¹

¹University of West Attica

²Open University Cyprus

ABSTRACT

The decision of an individual to buy a wine product without having tried it is a challenge for many wine consumers. Today the way products are selected by customers is influenced by digital technologies. All potential consumers have at least one smartphone that allows them to search for information. Wine is impressed in the minds of consumers that a high price also means a high quality, each time the consumer chooses the same product without trying it, so he trusts the company and the value proposition (Mihai Palade *et al.*, 2014). Companies sell a value proposition or a fairy tale, not just the product the consumer sees. In the new COVID-19 era, more and more companies want to provide a specialized experience to each of their customers by providing them with an authentic drink. The fear of the unknown - the new pandemic disease, made people perform only necessary activities such as going to the supermarket. This task could be safer if people touch only the products they will buy and not feel a product to read the label (Gómez-Corona C. *et al.*, 2021). According to Xiaowen *et al.*, coronavirus can survive on the surface of products for a long time, although the detection on the environmental surface is unknown (Xiaowen *et al.*, 2021).

RFID (Radio Frequency Identification) technology is more than ever into our lives and makes it capable of not being intercepted. There are many types of RFID systems, and each tag can provide a different interaction based on the ID tag (Gonçalves *et al.*, 2014). Both communication systems (5G, IoT) and RFID technology connect the company - winery and the consumers. The large volume of information carried within itself is distributed at rather high speeds (5G), disseminating information immediately. In Greece, RFID technology is used in public transport, building access, in some ways to promote companies, and in business cards among others. Soon, scientists believe that RFID technology will become part of everyday life (Gonçalves *et al.*, 2014). NFC (Near Field Communication) technology is an extension of RFID technology and performs wireless communication between the reader and the tag at 13.56 MHz. Via NFC, the customer does not need to touch a wine product; he only needs his mobile phone, and through the tag, the wine label can provide quality information, authentication of location, and the customers can follow the process from vineyards to their glass

(Ranaweera *et al.*, 2021). Traceability of the wine can verify that the wine is an anti-counterfeit product and confirm its origin and maybe some personalized message the producer wants to provide to the consumer. According to Vlachos, the Greek wine industry can overcome the economic depression through value-added activities (Vlachos V. 2017), such as RFID technology (Gonçalves *et al.*, 2014). Accordingly, companies use these applications to make personalized offers based on the taste and financial situation of the customer. They can also suggest specific combinations of food and wine and share sales with other industries (Zagorulko D., 2019). The customer can have personalized information about the climatic, edaphic factors that influence the wine. (Ballabio *et al.*, 2006). It is available to consumers a considerable amount of data on the origin, type of grapes, winemaking, or which foods they combined and highlighted (Vigar-Ellis, Pitt & Berthon, 2015). The NFC technology can provide producers and consumers with a safer way to interact. The customer may extract information about a wine, identify the product and be sure about the infection of Coronavirus that the whole world is going through. At the same time, producers can ensure that their label is unbreakable and provide customers with the message they want to communicate.

Keywords: RFID technology, NFC technology, Wine industry, Value proposition, Traceability, Authentication.

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FIRMS' STRATEGIES AND CLUSTER DYNAMICS

Ostapenko, Svitlana¹; Africano, Ana²; Meneses, Raquel¹

¹Faculty of Economics, University of Porto, Porto, Portugal

²Faculty of Economics, Cefup, University of Porto, Porto, Portugal

ABSTRACT

FIRM'S STRATEGIES AND CLUSTER LIFE CYCLE – THE QUESTION

Knowledge of the context is considered increasingly relevant for competing successfully in the global marketplace since context-firm's strategy is a two-way relationship (Puig and Gonzalez-Loureiro, 2017). There is an increasing tendency that emphasizes the importance of local economies, clusters specifically, for firms strategies and performance (Porter, 1998, Delgado, 2018). "Types of strategies, organisational practices, operations, and, ultimately, the performance of firms is shaped by the attributes of the locations and clusters they participate in" (Delgado, 2018). Consequently, Delgado (2018) emphasizes that future work should examine the interaction among firms' spatial organisation, specifically clusters, management practices, and firm performance. Following Puig & Gonzalez-Loureiro (2017) it is vital to investigate the responses and actions that firms implement, such as internationalisation, relocation, innovation, differentiation, specialisation, outsourcing, offshoring and reshoring, to adapt to the continually changing conditions of the firm's environment. But "firms' behaviour in the form of strategy" within changing cluster environment is still one of the aspects that is "underexplored so far" (Puig and Gonzalez-Loureiro, 2017). Thus, in the context of the interplay of Strategy and Cluster theory, there is still no understanding on the link between firms' strategic behaviour and cluster's dynamic environment.

THEORETICAL BACKGROUND – CLUSTER LIFE CYCLE

This research is focused on understanding the interplay of firms' strategies and performance and cluster environment, specifically, of changing cluster environment. Clusters are not a static phenomenon as their structure and composition change (Trippel et al., 2015). In this context, Cluster Life Cycle theory is used to interpret cluster evolution and understand its dynamics. Cluster Life Cycle (CLC) theory became one of the prominent research areas on clusters (Lazzeretti et al., 2019, Pronesti, 2019). This theory considers that clusters can develop and go through stages of birth, growth, maturity, decline or renovation, even though not implying any imminent logic or sequence of the development. Defining the stage in the CLC for a specific cluster have allowed to analyse the cluster's environment beyond the static understanding of local attributes' influence on firm's strategy and performance.

THE AIM OF THE RESEARCH

Therefore, this research aims to fill the gap in the understanding of the influence of regional clusters dynamics on firm's strategy design and performance. The main question is how does the cluster life cycle relate to firm's strategies and performance?

METHODOLOGY

The purpose of this research is to combine insights from cluster and cluster life cycle theories with firm's strategy field, in order to propose a new theoretical integrative framework based on integrative literature review (Torraco, 2005, Snyder, 2019). According to Snyder (2019) when the purpose is to "combine perspectives and create a new theoretical model" the integrative literature review is the appropriate methodology, in business research. Thus, following this approach we produce a holistic conceptualization and synthesis of the literature to date, providing an initial conceptualization of this interplay.

FIRM'S STRATEGIES AND CLUSTER LIFE CYCLE – THE LINK

The existing literature linking firms' strategies and performance to cluster dynamics was analysed with several relevant findings.

Firstly, cluster effects are not constant over time as positive agglomeration effects, during the early stages of the cluster life cycle, are replaced by congestion effects that negatively constrain firms in later stages of CLC (Dyba et al., 2020, Menzel and Fornahl, 2010, Martin and Sunley, 2011).

Secondly, several studies reveal that there is a link between the use of certain strategies and particular stages of the CLC, but in their perspective strategies are triggering factors of cluster evolution (Belussi and Sedita, 2009, Carli and Morrison, 2018, Elola et al., 2012, Scur and Garcia, 2019, Belussi, 2015). The following strategies were identified as triggering factors: cost leadership at initial stages of cluster evolution; differentiation and diversification at maturity and renewal stages; internationalization at growth and renewal stages.

Additionally, the adoption of coopetition, innovation and CSR are also identified as strategic choices that vary along the cluster life cycle, for that reason will be included into the analysis. Namely, deliberate coopetition was pursued at emergence, growth and renewal stages, with dominant cooperation during growth stage, when firms needed the cooperative action to establish their positions (Dana et al., 2013, Taplin, 2010, Hannachi and Coleno, 2015). Regarding innovation, during growth and renewal stages more radical innovation strategies were observed - this was particularly relevant to obtain firms positions during growth and during the renewal for firms' resilience (Elola et

al., 2012, Martin and Sunley, 2011, Conz et al., 2017). CSR appeared to be a relevant strategic choice for firms in Mature clusters when firms achieve certain positions and were able to include especially environmental concerns in their strategic choices (Bembenek, 2015).

Thus, it is concluded that cluster dynamics has its role in firms' strategic choices and performance, suggesting that certain strategies may enhance firm's performance at different stages of cluster life cycle.

FINDINGS, CONTRIBUTIONS, AND ORIGINALITY

Therefore, it is possible to conclude that the literature already explores the link between firms' strategies and cluster life cycle, however without systematization and not addressing the role of CLC in firms' strategic choices. Incorporating these findings this research proposes for the first time to analyse firms' strategies development within cluster dynamics, suggesting that during every stage of cluster development there are certain strategies that enhance firm's performance.

These findings are to be included into the integrative framework for integrating cluster dynamics in firms' strategies development and is to be applied in further empirical research, namely through case studies of clusters at different CLC stages. With that it is intended to contribute to the development of Strategic Management and Cluster theories by bridging strategy and cluster dynamics. And additionally, to provide a useful tool for company managers and policymakers to design better their strategies within cluster dynamics.

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Keywords: strategy, performance, cluster, cluster life cycle, corporate strategy, business strategy, coopetition, innovation, CSR.

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THE IMPACT OF VISUAL EWOM ON TOURISTS' INFORMATION SEARCHES.

Papasolomou, Ioanna¹; Sapuric, Svetlana²; Melanthiou, Yioula¹; Kfoury, Jessy³

¹School of Business, Dept. of Marketing, UNIC, Nicosia, Cyprus

²School of Business, Dept. of Finance & Economics, UNIC, Nicosia, Cyprus

³School of Business, Dept. of Marketing, UA, Beirut, Lebanon

ABSTRACT

AIM & OBJECTIVES

Social media (SM) refers to a group of web apps that facilitate the production and sharing of electronic word-of-mouth (eWOM) also known as user-generated-content (UGC) and are based on the idea and practical basics of Web 2.0 (Kaplan and Haenlein, 2010). SM is a noticeable center of the online travel sector and hence has a strong influence on online scheduling, buying behavior, and shopping activity (Tran *et al.*, 2017).

The overarching aim of this study is to explore the impact of visual eWOM on tourists' behavioral intentions while browsing SM for travel planning. Generally, the study aims to address research objectives as:

1. To investigate the existent literature on eWOM then reveal possible literature gaps concerning eWOM and its impact on consumer behavior.
2. To develop a conceptual model in relation to the impact of visual eWOM based on the existent literature.
3. To explore and understand the impact of Instagram on travelers' purchase behaviors and develop the profiles of travelers using visual eWOM on SM
4. To test the conceptual model by collecting quantitative data and re-develop it based on the study's findings.

The impact of eWOM on customer behavior can be determined by the way in which an individual believes or treats the information posted in these sources as trustworthy (Herrero *et al.*, 2015). If users believe that the web review sites they have used have provided more accurate and reliable content, they are more likely to use the same review platform again. In terms of source reputation, making reviewers' features visible on the online review page is becoming critical these days (Hwang *et al.*, 2018).

As well, eWOM is a valuable resource for consumers looking for a variety of personal products like electronics, as well for tourists when taking relevant decisions like selecting travel locations, arranging rooms and eating places (Litvin *et al.*, 2008; Simpson and Siguaw, 2008).

Findings show that the perceived usefulness of eWOM facilitates the connection between perceived ease of use and data acceptance. This means that consumers will find eWOM more valuable if the platform is simple to use, and they will be more likely to adopt data as a result (Ayeh *et al.*, 2013). In this study, the platform to be studied is Instagram, a popular SM platform.

However, some research questions stipulate like:

1. How does visual eWOM influence the way consumers process a message?
2. What is the profile of the tourists who check eWOM on MSM?
3. How has Instagram changed the way tourists search for info?
4. What is the impact of visual eWOM (Instagram) on the tourists' booking intentions?

LITERATURE GAP

The literature indicates that when conducting online restaurant analysis, prospective customers can look for images of food and physical evidence of restaurants created by other people. In addition, consumers seek out user-generated images, particularly on review sites, despite the value of restaurant-owned channels such as approved SM pages and internet sites (Oliveira and Casais, 2018). When web users check eWOM information about search products that contain photos, the users will be further interested in the product and that would generate a bigger buying intention (Lin *et al.*, 2012).

The majority of literature studying eWOM focuses on numerical ratings and numerical volume as metrics (Tirunillai and Tellis, 2012), thus Babic Rosario *et al* (2016) suggested to study different formats like videos, pictures, and audio records... especially that those visual elements were proven to reduce perceived risk (Park *et al.*, 2005).

The originality of this study is based on visual eWOM found on Instagram as a particular SM platform. The latter variables' impact on bookings' will come in parallel with the recommendation of Huertas (2018) to study how travelers use videos and stories on SM and how much they impact travelers' purchase behaviors.

METHODOLOGY

This study will adopt a positivism philosophy whereby a quantitative approach will be used to collect and analyze data. The latter approach is comparable to the ones applied in other contexts that tried to

forecast behavioral intention. Some of the scholars who applied them are Venkatesh et al. (2003) and Ryu et al. (2009).

A self-administrated online questionnaire directly related to the topic will be distributed to gather the empirical data. Afterwards, the researcher will employ several analyses by using the SPSS software (Statistical Package for the Social Sciences) thereafter confirming or disconfirming the study hypotheses. The sample will include a large number of international tourists, and they will be from different generations as recommended by di Pietro and Pantano (2013).

Keywords: Consumer behavior, eWOM, online reviews, decision-making process, tourism, information gathering stage, social media, Instagram, consumer generated image, behavior intention.

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CHALLENGES IN THE REIMBURSEMENT PROCESS REGARDING MEDICAL SERVICES IN ROMANIA. CAN INTERNAL MANAGERIAL CONTROL IMPROVE ONE'S ACTIVITY OF REIMBURSEMENT?

Paşcu-Gabără, Elena Iuliana¹; Udrescu, Lucia-Maria²;

¹Business Administration, Doctoral School of Business Administration, Bucharest University of Economic Studies, Bucharest, Romania

²Accounting, Doctoral School of Accounting, Bucharest University of Economic Studies, Bucharest, Romania

ABSTRACT

Research Question: *The main objective of this paper is to highlight the importance of Internal/Managerial Control over the contracting, settlement and reimbursement of medical services by county health insurance funds to private medical units in Romania.*

Motivation: *The motivation of this article lies in the fact that the reimbursement of medical services is an extremely sensitive and controversial subject in Romania as the system faces gaps that have their roots in political, social and economic current problems, and the application of a control system that ensures transparency may represents one of the solutions to reduce such a problem.*

Background: *Against all the dysfunctions and shortcomings that the Romanian medical system has faced in the last thirty years, more precisely after the removal of the communist ruling regime, the health system operated at two levels: public and private. Thus, for more than 30 years now, consumers of health services have been able to choose where to seek treatment according to their needs and budget. This means that public entities, more precisely Health Insurance Houses have a specific task to complete: the reimbursement of medical services.*

Data: *The database that was selected for this paper brings together scientific data published up to May, 2021 in Web of Science, PubMed, Google Scholar, and Scopus counting a total number of 54 articles.*

Tools: *We carried out an exploratory research study through which an analysis was performed based on the informations, laws, procedures that were already published by the romanian government to deliberate the way reimbursements are made within the health insurance houses.*

Findings: *To determine what was the decisive factor in this form of organisation of private clinics. How do health service payments influence the quality of medical care and, most importantly, can a system of internal managerial control in healthcare funds ensure greater transparency of internal activities, especially health service payments?*

Contribution: *This paper provides an approach to discover under-investigating issue about public and private health system in Romania due to the fact that the subject generates multiple directions of investigation and offers a practical solution to optimisation of reimbursement process of medical services in Romania.*

INTRODUCTION

Romania's healthcare system is one of the pillars of this society, a system that provides daily healthcare to over 19 million Romanians, a system that has faced many challenges over the years and continues to provide safety even in these difficult times of the global pandemic.

According to the World Health Organization, public health is the science and art of disease prevention, improving lifespan and promoting health through the organized efforts of society. The quality of public health depends on the quality of the medical act, the medical care received by each individual as a patient (Popovici V.I. and Tătaru T., 2017).

The Romanian public health system is a social system based on health insurance that has remained mainly centralised despite recent decentralisation efforts. In addition to the underlying problems faced by this system such as the minimal material resources allocated to the health system, there is a disproportionate and inappropriate allocation with no prioritisation system. There also is a lack of effective health policies due to political instability with successive changes of several health ministers, each of them having a different management plan, a different vision of approach, the massive exodus of health specialists to other countries, and also the negative effects of the global pandemic due to the SARS-CoV-2 virus infection. This situation, which has been aggravating for decades, has made it possible for private health institutions to emerge in Romania, institutions which operate under the same legislation as public hospitals, but which receive funding from completely different, often private, sources.

Even for the healthcare funds that manage the Single National Health Insurance Fund (S.N.H.I.F.) at a local level, it is a challenge for private units to conclude contracts because the patient is the main actor in the social insurance market where the degree of satisfaction would be a very important indicator of the allocation of sums by the funds between public and private. Thus, in the following, we shall highlight the importance of the Internal Managerial Control System regarding the healthcare funds performing reimbursement activities.

RESEARCH METHODOLOGY

Research Criteria

The sources used for this article are the secondary ones, previously published in scientific papers using the keywords "*Romanian health system*", "*internal managerial control*", "*public funds*" and "*state-*

covered medicine". Some of these sources are related to the legislative changes brought on the medical system in Romania, but also on the Framework-Contract governing the conditions for the provision of health care and the rules within the National Health Insurance House.

The Current State of Knowledge

An intriguing area in the field of public health is represented by the reimbursement of medical services by county health houses. This gives an importance to the subject as far as we are talking and a control system that ensures the transparency of the reimbursement activities which represent a percentage of 85% of the budget of the county houses.

THE PUBLIC HEALTH SYSTEM IN ROMANIA

According to Ioniță F. and Cioc M. (2012), in the communist time, the health system was based on social accessibility and equal treatment for all citizens. Healthcare was financed from the national budget, a budget planned for five years for all sectors of the economy, and the resulting plan was mandatory for everyone. Since then a lot has changed both in the health sector - which was the main actor in terms of some epoch-making inventions - and for our country as well, therefore Vladimir Costache published in his study "The Health System in Romania" (2020) that the World Bank classifies Romania in 2019 as a country with upper-middle income and which has experienced and is still experiencing a quick development after the 1989 revolution with a return to democratic governance. This has also been noticed in the medical system where the need for quality medical services, which the state has not been able to provide, but also the emergence of a new category of insured, especially within corporations offering health insurance as part of the salary package, has led private providers to emerge on the health insurance market in Romania. However, the number of people receiving private care in Romania is 30% of the working population, while the rest of the population, not having access to private medical services, are treated in state hospitals. With regard to private healthcare providers, they are enjoying a growing number of patients thanks to contracts with county health insurance funds which make it possible to pay for the entirety or only a part of some medical services under the basic package (where full reimbursement is not provided, as the patient pays the difference).

One of the most important decisions of the authorities on healthcare in recent years has been GEO 25/2020, which allowed private health units to be able to treat medical emergencies paid for through the national health insurance funds and also to provide medical services to patients in national treatment programs for chronic conditions such as cancer, HIV/AIDS, tuberculosis or cardiovascular diseases. In the private health system, all these services are thus settled at the same rate as they are in public hospitals in Romania, and if the amount of these services in the private system exceeds the

amount settled by the insurance company, the patient pays for the difference in the form of a co-payment. It is important to mention that until now such health services in private hospitals could only be accessed for a charge. The direct consequences of this are the following: 1. - the limit of the national health insurance funds remains unchanged, but this redistribution of funds means that the state hospitals, which are already underfunded, will receive less funds for medical services compared to the periods prior to GEO 25/2020; 2. - an increase in trustworthiness, namely a more positive attitude of a patient towards services in private health units compared to those in state hospitals, thus leading to an increase in accessibility; 3. - an increase in the number of health units that will be able to treat patients, which proved extremely useful a few months later when the SARS-CoV-2 pandemic saw a surge in demand for health services, largely due to the epidemiological situation.

With the development of the possibility to offer medical services paid for by the county health insurance funds, competition between these private hospitals emerged in the private medical system in Romania. They offer a wide range of medical services so to improve the conditions offered to patients, in order to have health specialists as well trained as possible, and only in this way can the standards necessary for the payment of medical services be met, the amounts granted being directly proportional to these standards.

An important aspect regulated by law in the Romanian healthcare system is that a healthcare employee in Romania cannot provide medical services settled by two healthcare units, for example simultaneously in a public hospital and a private clinic. In this regard, as was noticed during the pandemic when public hospitals were used to their full capacity, the population in need of health services turned to private hospitals, which led to an increase in the demand for additional reimbursement funds from private health units to county health insurance funds.

HEALTH INSURANCE FUNDS IN ROMANIA

The health insurance funds in Romania are public institutions with legal personality, non-profit institutions of local interest, with their own budget, which are subordinated to the National Health Insurance Funds. The main purpose of these institutions is to ensure that the health insurance system functions properly and in accordance with the needs of citizens at the local level.

From a legislative point of view, these institutions operate on the basis of the provisions of the Law no. 95/2006 on healthcare reform, with subsequent amendments and additions, and the statute of the National Health Insurance Fund.

Currently, reimbursements are made in accordance with Government Decision no. 140/2018 on the Framework-Contract governing the conditions for the provision of health care and the rules supplementing this normative act.

INTERNAL MANAGERIAL CONTROL - THE MUST OF TRANSPARENCY

Regarding the Internal Managerial Control (I.M.C.), it is delimited by the Order of the Secretary General of the Government no. 600/2018 as well as by Order no. 1054/2019 which outline the exact lines in terms of its implementation, the aspects that must be taken into account if we want a correct implementation as well as other provisions that are adapted according to the profile of each public institution.

In order to ensure that the transparency of the internal activities of the county health insurance funds is real, we need to take a look at the implementation of the Internal Management Control System (I.M.C.S.) and what are the good practices which can assure that the contracting, reimbursement and payment of medical services by the funds are in conformity. Each fund must have an I.M.C.S. with well-established procedures so as to ensure equal opportunities between the state and the private sector and thus ensure that the needs of the insured for medical services are met.

As far as the health insurance houses are concerned, their management teams must establish a well-documented procedural framework so that the reimbursement of sums is not flawed with regard to this type of reimbursement - that of medical services to medical service providers.

CONCLUSIONS

The role of the Internal Managerial Control System is extremely important and uniform procedures must be adopted at the level of health insurance houses. These procedures are a guarantee for the management of these public institutions, for the people who settle and for the people who control that the reimbursement is done within the law and in a transparent manner.

The National Health Insurance Fund, as the main authorising officer, plays an important role in creating framework procedures that ensure a standard for the county health insurance houses, and that each of them customise certain situations according to its features (geographical area, number of inhabitants, etc.).

Last but not least, although the authorities have taken a first step towards meeting the growing need for healthcare for the population consuming health services through GEO 25/2020, this legislative approach is incomplete, as there are still many aspects that require a well-defined legal framework in order to be able to perform certain medical procedures, surgical interventions, administration of certain treatments, dental services in private health units under contract with the county health insurance funds. In addition, the current epidemiological context shows a major emergency for the authorities to take legislative steps to regulate medical services directly related to SARS-CoV-2 infection, such as the treatment of patients with moderate and severe forms in private medical units and preventive services such as vaccination in these hospitals.

This paper provides a comprehensive overview of the reimbursement system for health services provided by the private health system in Romania and paid through the national health insurance fund. The private health system, which despite all efforts to provide healthcare for the population consuming health services, has not become fully integrated into the national health system. However the private system has currently proved to be helpful in reducing the health crisis precipitated by the increased demand for health services in the current epidemiological context. As research directions, we suggest a study involving the vision of specialists in healthcare financing to initially run the reimbursement systems and to delimit expense limits proportionate to performance standards, to promote the cooperation of healthcare providers for the benefit of the patients, and to develop and implement a system of transparency of internal activities within the National Health Insurance Fund in Romania.

Keywords: Romanian health system, internal managerial control, public funds, reimbursment policies, social health insurance

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MAPPING WINE TOURISM: A SYSTEMATIC LITERATURE REVIEW

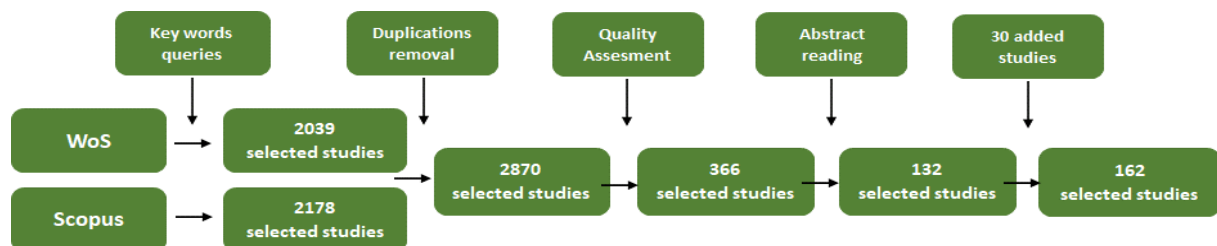
Pé-Curto, António; Loureiro, Sandra Maria Correia; Guerreiro, João

ISCTE-Instituto Universitário de Lisboa and BRU-Business Research Unit, Lisbon, Portugal

ABSTRACT

This research makes an overview of the current scientific state of the art about Wine Tourism (WT). For this purpose, a systematic review of literature (Loureiro *et al.*, 2020; Tranfield *et al.*, 2003) was conducted to map wine tourism. The systematic analysis uses the main research articles published in the most relevant journals since 1997 (the first indexed studies were published in this year). The current study explored the objective/goals, methodologies, theories, constructs, moderators, mediators, antecedents, consequences, main conclusions and gaps, as well other relevant aspects of the research.

Figure 1. Screening process



Source: author's elaboration

A total of 2039 papers were collected from Web of Science (WoS) and 2178 papers were extracted from Scopus. First, duplications were removed, second for quality assessment, we matched each paper with the Academic Journal Guide 2018 from the Chartered Association of Business Schools (ABS) ranking so that only papers featuring in ABS 4, ABS3 and ABS2 were considered, 366 resulted. Through abstract reading 234 papers were excluded. Additionally, from the initial literature review we found several papers being often cited, but not included in the selected 132 papers neither above ABS1. Most of those papers (30) with significant citations were from wine sector journals and, therefore, were included in the systematic review, which end up with a total of 162 papers to analyze (figure 1).

From 1997 to 2010, a total of 44 articles were published in the following journals: Journal of Travel and Tourism Marketing, Recreation Research, International Journal of Contemporary Hospitality Management, International Journal of Tourism Research, International Journal of Wine Business Research, Journal of Wine Research. Such studies were responsible for 57% of the articles published. From 2011 onwards the articles published more than doubled the previous period. From the 118 articles published after 2011, 58% were published on the following journals: Current Issues in

Tourism; International Journal of Wine Business Research, Tourism Analysis, International Journal of Contemporary Hospitality Management, International Journal of Tourism Research, Tourism Management, Tourism Recreation Research, Journal of Hospitality and Tourism Research, Tourism Planning and Development. Wine tourism sector has been studied using 38 different theories identified in the articles analyzed. Only 9 theories (51.9% of the total cited theories) are cited more than on time. The main theories cited in the papers include Servicescape (Bitner, 1992; Williams, 2021), Consumer behaviour (Loureiro *et al.*, 2021; Schiffman *et al.*, 2001), Experience economy (Pine and Gilmore, 1998; Vo Thanh and Kirova, 2018) Destination choice (Loureiro, 2020; Wu and Liang, 2020) and Theory of planned behaviour (TPB) (Ajzen, 1988, 2020; Sussman and Gifford, 2019). The articles published during the period of analysis on this topic are mostly based on empirical findings (92%), while 8% the articles analyzed are theoretical, and 16.1% are qualitative. The most common used data collection technique is the survey method. The systematic literature analysis also identified the principal constructs used in this research area. The most frequent *antecedents* of Loyalty are Involvement (12%) immediately followed by Experience (11%). Some other constructs observed are Perceived value (6%), Motivation (6%), Destination image (5%), Satisfaction (4%), Authenticity (3%), Quality (2%), Trust (2%), Service (2%) and Personal Attributes (2%). These 11 constructs represent a concentration of 55% within the antecedent's constructs. Within the *mediators and moderators*, the most frequent used constructs we observe being mentioned in the literature were Satisfaction (13.7%), Involvement (12.3%), Winescape (8.2%), Intention to revisit (5.5%), Loyalty (4.1%), Motivation (4.1%) and Quality (4.1%). These 7 constructs are responsible for 52.1% of the total mediators and moderators mentioned in the literature. The *consequents* most observed are Intention to revisit (14.3%), Loyalty (11.4%), Intention to visit (8.6%), Intention to buy wine (7.1%), willingness to recommend (7.1%) and Satisfaction (7.1%). The 6 most frequent consequent constructs are accountable for 55.7% of the total constructs.

This research is innovative and valuable once identifies and analyzes the main theories and constructs studied in wine tourism field since 1997 to actuality, being helpful in guiding scholars to new streams of research, allowing the progress in wine tourism knowledge.

From a managerial perspective it's very valuable to wine tourism and marketing managers, as provides important insights related with constructs that have a direct impact in wineries strategy and business.

With the findings of this systematic literature review we were able to present a framework to show the main constructs and relationships used to study WT, present literature gaps and point out avenues for future research, in addition to providing businesses some guidelines on best practices.

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INDIVIDUAL KNOWLEDGE SABOTAGE ANTECEDENTS: A MULTILEVEL ANALYSIS

Perotti, Francesco Antonio¹, Ferraris, Alberto^{1,2}, Massucco, Matteo¹

¹Department of Management, University of Turin, Turin, Italy

²Graduate School of Economics and Management, Ural Federal University, Ekaterinburg, Russia

ABSTRACT

INTRODUCTION

Knowledge sharing (KSH) has been highlighted as the principal knowledge management (KM) process, since it allows organizations to leverage knowledge-based resources in order to obtain a competitive advantage (Wang and Noe, 2010). However, this key process suffers from several counterproductive workplace behavior (CWB) that often remain uncharted pitfalls (Spector et al., 2006). Among them, knowledge sabotage (KSA) has been identified as one of the darker side of KSH which, to date, remains mostly unexplored (Serenko, 2019; Ferraris and Perotti, 2020). In fact, no studies have ever been proposed regarding the antecedents of this phenomenon. The purpose of this research is therefore to identify the role of certain personality traits (i.e., Conscientiousness, Agreeableness, Openness) with respect to KSA occurrences at individual level, and introduce team cohesiveness as an empowering and corrective group level factor. Overall, we are willing to contribute to KSA theoretical development by providing a multilevel empirical analysis and offer useful insights to managers who want to prevent this harmful counterproductive behavior, as well.

THEORY AND HYPOTHESIS

Knowledge sabotage

KSA is a phenomenon lately observed in Serenko's research and identified as a CWB capable of affecting KSH in organizations (Serenko, 2019; Serenko and Choo, 2020). It has been identified as a dangerous behavior capable of negatively impact on intraorganizational sharing of knowledge (Ferraris and Perotti, 2020; Serenko, 2019). KSH is a KM key process which allows organizations to exploit and capitalize on knowledge-based resources, although some behaviors may hinder or limit its effectiveness (Spector et al., 2006; Wang and Noe, 2010). Thus, it is of interest to empirically investigate individual and team-level antecedents of KSA (i.e. personality traits and group cohesiveness) through a multilevel analysis, in order to figure out their role in preventing this extreme CWB related to KSH processes.

Individual antecedents - Personality traits

Literature shows how personality traits define people decisions and actions, so it also includes the way someone act in organization and share knowledge with colleagues (Matzler et al., 2008). In particular, high levels of Conscientiousness, Agreeableness, and Openness to Experience have been associated to interpersonal exchanges and people willingness to share knowledge with organizational team's members (Cabrera et al., 2006; Matzler et al., 2008). From the perspective offered by the five basic dimensions of personality (Costa and McCrae, 1992), we believe certain characteristics of people can be concretely related to this kind of CWB, due to their pointed out relation to information exchange process. This means high levels of Conscientiousness, Agreeableness, and Openness are possibly associated with people unwilling to commit KSA. Conversely, we expect lower levels of these attributes to be associated with people willing to commit KSA. This leads us to the development of the following hypothesis.

H1. The higher the level of individual personality traits (Conscientiousness, Agreeableness, Openness), the lower is individual knowledge sabotage within the company.

The moderating role of group cohesiveness

In terms of interpersonal and relational characteristics of people who collaborate in team, it has been stated how strong relationships are able to establish a sense of trust in people which result in an effective information flow (Levin and Cross, 2004). In particular, in a cohesive group where people identify each other with recurrent values and follow common goals, sharing of knowledge is a common attitude raised by folk (Woerkom and Sanders, 2010). Since team characteristics and interpersonal relationships affect the way people operate and pool resources (Wang and Noe, 2010), we argue that team cohesion is a factor capable of improving individual characteristics in the direction of a common sense that prevents sabotage occurrences. In conclusion, we expect group cohesiveness may intensify the role of people's personality traits (i.e., Conscientiousness, Agreeableness, Openness) in avoiding individual KSA attitudes. Moreover, it should be able to alleviate the opposite effect as well, where people with low reported levels of Conscientiousness, Agreeableness, and Openness have a greater inclination to commit sabotage related to knowledge. Therefore, we hypothesize what follows.

H2. Team member cohesiveness positively moderates the relationships between personality traits and individual knowledge sabotage, such that higher levels of Group Cohesiveness strengthen the negative association between Conscientiousness, Agreeableness, Openness and Individual KSA.

Figure 1 graphically represents the relationships among the variables identified in hypotheses.

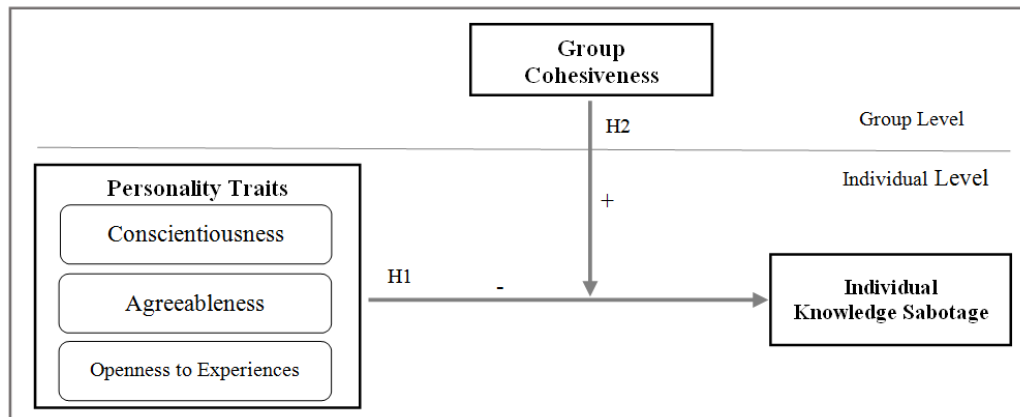


Figure 1 – The multilevel relationship model

Source: Authors' elaboration

DATA AND METHODOLOGY

Authors conduct a multilevel analysis with the aim of exploring the relationships between individual and group level variables and knowledge sabotage. Preliminary data for this empirical study are taken from a survey submitted to 200 people. Our target includes managers and employees from Italian companies, different in terms of economic activity and size (minimum number of employees are 50). Then, due to the multilevel nature of the research, a hierarchical linear modeling (HLM) will be carried out in order to test the hypotheses put forward. All items were adapted basing on previous studies (Costa and McCrae, 1992; Serenko and Choo, 2020; Woerkom and Sanders, 2010).

EXPECTED FINDINGS, IMPLICATIONS AND CONTRIBUTIONS

In our research we expect to demonstrate the negative association between certain personality traits and KSA occurrences with the moderating role of group cohesiveness. This study aims to enrich the knowledge management literature and shed lights on its antecedents as counterproductive workplace behavior. Moreover, it is our intention to deliver important insights to managers interested in preventing this kind of sabotage in their organization, by suggesting some features to look for in people and how the establishment of cohesion in working groups can actively improve individual conditions.

Keywords: knowledge sabotage, knowledge sharing, personality traits, Big Five, group cohesiveness, knowledge management

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KNOWLEDGE SABOTAGE CONSEQUENCES ON INTENTION TO SHARE KNOWLEDGE

Perotti, Francesco Antonio¹, Ferraris, Alberto^{1,2}, Calì, Pietro¹

¹Department of Management, University of Turin, Turin, Italy

²Graduate School of Economics and Management, Ural Federal University, Ekaterinburg, Russia

ABSTRACT

INTRODUCTION

The growing importance of knowledge in organizations has led to the development of processes inherent to knowledge management, the most important of which proved to be knowledge sharing (Nonaka and Takeuchi, 1995; Wang and Noe, 2010). In parallel, some researchers have also focused on counterproductive behaviors adopted by people in workplace, due to the acknowledged negative influence on the sharing of knowledge (Connelly et al., 2012). Among others, knowledge sabotage has been conceptualized as the most extreme counterproductive workplace behavior related to intra-organizational knowledge flow, although it is a largely unexplored phenomenon related to employee sabotage (Crino, 1994; Ferraris and Perotti, 2020; Serenko, 2019). The existence of this counterproductive knowledge behavior has been empirically demonstrated (Serenko, 2019) and it has been pointed out as “knowledge sabotage incident may dramatically impede intra-organizational knowledge flows” (Serenko, 2020). However, a quantitative study aimed at identifying the extent of the relationship between the phenomenon of knowledge sabotage and the impact on the intentions of sharing knowledge within the organization, has not yet been conducted. Building on the social exchange theory (Cropanzano and Mitchell, 2005), the purpose of this research is to empirically validate the relationship between knowledge sabotage and knowledge sharing. We use individual knowledge sabotage (IKS) and co-worker knowledge sabotage (CKS) as independent variables and intention to share knowledge (ISK) as dependent one. Our aim is to question and validate the role of knowledge sabotage as a counterproductive knowledge behavior and shed lights on its consequences on knowledge sharing process. In fact, only by knowing better the downstream implications of the phenomenon it is possible to take the right measures upstream to promote a flourishing flow of information in organizations.

THEORY AND HYPOTHESIS

Knowledge sharing and people intention to share

Intra-organizational knowledge sharing is a fundamental knowledge management process that implies the exchange of information, know-how and useful data among colleagues, in order to leverage on knowledge as organizational resource (Nonaka and Takeuchi, 1995). Since it depends on people behavior, it has highlighted as the extent to which an employee has the willingness to share his/her tacit or explicit knowledge with other people in the organization (Wang and Noe, 2010). Therefore, the process itself of sharing knowledge rests on individual's intention to share knowledge, it cannot be forced but also facilitated and encouraged by the organization (Bock et al., 2005). Previous studies have identified two kind of knowledge: tacit and explicit. Tacit knowledge concerns information that cannot be easily codified or transcribed because embedded in an individual's conception or experience, such as know-how or skill. While, explicit knowledge refers to easily expressed and communicated information, in the form of written documents, such as reports or manuals (Bock et al., 2005; Cabrera and Cabrera, 2002).

Individual and co-worker knowledge sabotage

Knowledge sabotage has been empirically demonstrated as a negative conduct which concerns incorrect or wrong provision of knowledge to a colleague, as well as knowledge concealment of key information for the victim (Serenko, 2019). It occurs where the saboteur possesses extremely important knowledge for the target, being fully aware the latter is in need of that. Also, it happens completely intentionally on the saboteur's side (Serenko, 2020). In particular, two declinations of the phenomenon have been identified, according to an individual perspective and an expected behavior of colleagues in the workplace (Serenko and Choo, 2020). On the one hand, IKS represent the attitude of a person to harm colleague's performance or the organization through this kind of workplace sabotage of knowledge. On the other hand, CKS involves the expectation to be sabotaged by other organization's members. Serenko and Choo (2020) identified a strong link between these behaviors, for which "when employees observe their fellow co-workers engaging in knowledge sabotage, they are more likely to mimic this behavior". Following these considerations and drawing on knowledge management literature, we posit how both IKS and CKS are negatively related to intention to share knowledge. All the more reason, the combined effect of the two variables should further increase the negative impact on the dependent variable (i.e., intention to share knowledge). In addition, since it is the first study that empirically measures knowledge sabotage consequences on intention to share knowledge, it would be interesting to highlight which kind of knowledge is more affected respect to its form (i.e., tacit or explicit). Therefore, we put forward the following assumption.

H1. The higher the level of individual knowledge sabotage, the lower is people intention to share knowledge within the company.

H2. The higher the level of co-worker knowledge sabotage, the lower is people intention to share knowledge within the company.

H3. The joint effect of high levels of both individual knowledge sabotage and co-worker knowledge sabotage, negatively affect people intention to share knowledge within the company.

Figure 1 represents the relationships among the variables identified in hypotheses.

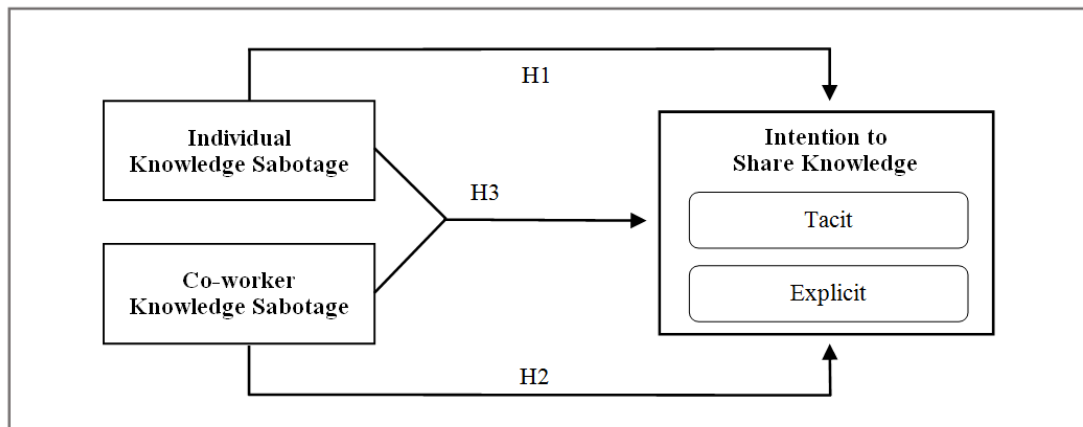


Figure 1 – The relationship model

Source: Authors' elaboration

DATA AND METHODOLOGY

The hypotheses put forward are tested using an OLS regression analysis (as for a similar framework used by Bresciani and Ferraris, 2016), in order to highlight the consequences of IKS and CKS on people's intention to share tacit and explicit knowledge. The preliminary data needed for this empirical study comes from a survey of 200 people. The target audience includes managers and employees of Italian companies, differing in industry and size, with a minimum of 50 people in each one. All items were adapted basing on previous studies (Serenko and Choo, 2020; Bock et al., 2005).

EXPECTED FINDINGS, CONTRIBUTIONS AND IMPLICATIONS

Knowledge sabotage still hides several pitfalls towards his antecedents and consequences on the process of sharing knowledge in organizations (Ferraris and Perotti, 2020; Serenko, 2019; Serenko and Choo, 2020). From the investigation on managers and employees, we expect to obtain results capable of offering a better understanding of the impact extent of this counterproductive behavior on the sharing process. Therefore, from the first study that straightly relate knowledge sabotage and knowledge sharing, we contribute to knowledge management literature by proving the entity of the so-called more "extreme form of counterproductive knowledge behavior" (Serenko, 2019). Furthermore, we propose a

distinct consequences framework according to the type of knowledge whose sharing is mainly hindered by the dealt with counterproductive workplace behavior. As for managerial implication, our observations can be definitely useful for knowledge-based organizations whose goal is to properly manage the flow of knowledge. Indeed, they could draw interesting insights as regards the adoption of policies aimed at preventing or contrasting knowledge sabotage incidents.

Keywords: knowledge sabotage, knowledge sharing, knowledge management, tacit knowledge, explicit knowledge.

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CONSUMER'S PERCEPTIONS OF A SPORTS BRAND GLOBALNESS: A STUDY ABOUT THE INFLUENCE OF BRAND LOVE AND THE INTENTIONS TO BUY AND GENERATE POSITIVE WOM

Rodrigues, Paula; Sousa, Ana; Reis, Clara

Universidade Lusíada – Norte, Porto, Portugal and COMEGI (Research Centre in Organizations, Markets and Industrial Management),

ABSTRACT

INTRODUCTION

This research investigates consumer-based relational authenticity (CBRA), consumer's perceived brand globalness (PBG), consumer's perceived brand localness (PBL), and corporate social responsibility image (CSRI) as antecedents of brand love (BL), and its relationship with consumer's word-of-mouth (WOM) and purchase intention (PI).

THEORETICAL BACKGROUND

In a globalized and competitive environment, brand management is very important. Consumers may desire global brands as they deliver quality, expertise and credibility (Batra et al., 2000) and, at the same time, enjoy prestige and status in consumers' mind (E M Steenkamp et al., 2003). An important construct introduced in marketing to capture global brand effects is perceived brand globalness (PBG), which is defined by Steenkamp et al. (2003, p. 54) as "consumers believe that a brand is marketed in multiple countries and is recognized as global in these countries".

Many factors, such as technological progress, advances in telecommunication technologies or worldwide investment, contribute to the globalisation process. One of the outcomes is creating a kind of consumer culture in which people strive to best meet their needs. Since foreign products are widely available in several domestic markets, companies need to adapt their marketing strategies to better target global consumers' proneness and find ways of responding to the evolving nature of global and local consumption.

METHODOLOGY

A sample of 225 consumers' perception about New Balance brand globalness was collected using a structured questionnaire. In order to analyse the proposed relationships, a holistic model was developed and tested using partial least squares-structural equation modelling. The survey measured

respondents' consumer-brand relational authenticity using the Ilicic and Webster (2014) scale, perceived brand globalness and localness using Steenkamp et al. (2003) adapted scale, consumer social responsibility image using items from Dean (2002), Lichtenstein et al. (2004) and Menon and Kahn (2003) scales, brand love using Bagozzi et al. (2017) scale, word of mouth using Carroll and Ahuvia (2006) scale and purchase intention using items from the scale of Putrevu and Lord (1994).

FINDINGS

Findings suggest different effects of the antecedents of brand love and a strong and significant effect of brand love on both word-of-mouth and consumer's purchase intention. Moreover, as expected, findings show that word-of-mouth has a positive effect on consumer's purchase intention.

CONCLUSION, CONTRIBUTIONS AND LIMITATIONS

This study contributes to the expansion of knowledge on consumer-brand relationships literature by exploring the simultaneous role of perceived brand globalness and localness on brand love as well as the relationship between consumer-brand relational authenticity, corporate social responsibility, and brand love. Despite consumer's knowledge and recognition about the brand globalness, marketing managers need to develop personalized campaigns and offer customized experiences that show brand authenticity and how they promote corporate social responsibility, both internally and externally. This is fundamental to generate consumer's positive word-of-mouth and purchase attitudes.

As a caveat to our findings, we used a convenience sample and analysed a single sport brand. Further studies should consider a broader sample and different brands.

ACKNOWLEDGMENT

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Keywords: Perceived Brand Globalness, Perceived Brand Localness, Consumer-based Relational Authenticity, Corporate Social Responsibility, Brand Love, Word-of-Mouth, and Purchase Intentions.

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WELLNESS TOURISM AND MARITIME RESOURCES: A NETNOGRAPHIC ANALYSIS ON PERCEPTIONS AND PREFERENCES OF CONSUMERS

Rodrigues, Paula; Reis, Clara

Universidade Lusíada - Norte, Porto, Portugal and COMEGI (Research Centre in Organizations, Markets and Industrial Management)

ABSTRACT

Wellness tourism can be seen as a tourism focused on escapism where tourists are purposefully driven by the desire to actively and voluntarily seek enhanced wellness (Smith and Kelly, 2006). It respects to travels primarily motivated by wellness, but also leisure or business travels punctuated by a pursued occasional state of wellness (GWI, 2018). Even though wellness is a subjective concept, it can be acknowledged as an individual state or process that aims at enhancing holistically our self-being and achieving a balance between body, mind and spirit (Stara and Peterson, 2017, Smith, 2003). Places like the ocean are frequently associated with this term and are searched for tourists prompted by relaxation, spiritual or even medical purposes (Han et al., 2020, Kelly, 2018, Voigt and Pforr, 2014). However, it was found a gap in the literature concerning the relationship of wellness tourism and maritime resources, whose future investigation should approach consumer behaviour and be directed to sustainable governance, as pointed by Kazakov and Oyner (2021). Moreover, we recognize the potentiality of Portuguese coastal resources, that extend over 2.500 Km, toward economic growth (República Portuguesa, 2020). To support Portugal's long-term development, Turismo de Portugal (2017) outlines some strategic guidelines in *Estratégia Turismo 2027*, which encompasses health and wellness tourism associated to the therapeutic properties of the sea. Additionally, wellness tourism is identified as an emergent asset and an opportunity for the Portuguese economy.

Thus, this paper aims at exploring the relationship between wellness tourism and maritime resources, focused on the consumer behaviour relatively to the Portuguese touristic offer, for which some questions are developed: 1) How maritime resources are related with wellness tourism services?; 2) How do maritime resources bring value to the tourist experience?; 3) How has this relationship been affected throughout the pandemic of Covid-19?; and 4) What are the key activities of maritime economy and respective geographical regions that most contribute to the wellness tourism and to the sea economy?

Following a methodology used by Dillette et al. (2021), a netnographic study was developed in order to understand in-depth consumers perceptions about wellness tourism experiences based on Portuguese maritime resources. We analysed 50 services' offers from different experiences, including mostly services of accommodation and restaurants and 300 reviews written either in Portuguese either

in English published in the platforms Odisseias, Booking and Tripadvisor. The analysis comprised the period April 2019 - April 2021, in order to cover the same traveling seasons before and after Covid-19 restrictions (February 2020).

Primary results show that one quarter of the wellness tourism industry is dependent on maritime resources, revealing a significant proportion. Regarding consumers' perspective, we confirmed that the ocean is generally associated with positive, calming and relaxing sensations through the appreciation of things like the view, the smell, the taste of food and thus, grounded on sensorial perceptions. With respect to the impact of Covid-19 in the tourists' preferences, we notice that the same worries of the pre-pandemic period are kept in 2020-21, like the professionalism and friendliness of the staff, the comfort and the aesthetics of the space, the surrounding environment and the prices. However, some additional demands with the hygiene were demonstrated and higher enthusiasm about the environment and appreciation for the moment were denoted, enhancing the good feelings, tranquillity and wellness sensations brought by ocean-based touristic activities. Indeed, we observed that the sea can be now perceived as an environment of escapism from the pandemic context characterized by strict rules, confinement and solitude. These findings reflect the connection between sensations and emotions (Carter et al., 2014), showing that sensory stimuli engaged by the hotel or restaurant ambience around maritime resources are able to provoke positive emotional responses in relation with wellness. Undeniably, Covid-19 background is having a great impact on all society, centred on changes of people's perspectives, desires and values. Thus, we ask: Is wellness tourism facing a new paradigm? We believe so.

In consequence of our results, we understand that there is a great potential in the exploitation of ocean assets in order to respond to a highly emotional expectation from wellness tourists. Practical implications include the adjustment of management of the Portuguese wellness tourism industry toward the maximization of the use of maritime resources on the fulfilment of emotional expectations. This can be done in many creative manners, though, for example: bringing the external environment to the indoor space, with decoration, music and food; and a shift on the promotion of services with a more sophisticated appeal for the sentiments that tourists are currently searching for. Additionally, it is recognized the need to invest in a more innovative and environmental-friendly exploitation of earth resources, for which we provide some guidelines. Our findings may contribute to develop novel and sustainable governance strategies in Portugal, channelling the maritime resources exploitation towards areas of wellness tourism, enabling a more competitive positioning at a global scale.

With the development of this investigation, we provide new insights of a theme that has not been studied for the Portuguese economy and also through a methodological approach not commonly explored in the scientific literature regarding wellness tourism. Nonetheless, the methodology based

on nethnography might entail some limitations, since it is difficult to establish the information about the demographics informants, and then it is not possible to generalize the findings.

Keywords: Maritime Resources; Wellness Tourism; Sustainability; Strategic Governance; Netnography

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GENUINE OR COUNTERFEIT? A STUDY ABOUT CONSUMER'S ATTITUDES TOWARDS COUNTERFEITING AND THEIR INTENTIONS TO BUY FASHION ACCESSORIES

Rodrigues, Paula^{1,2}; Sousa, Ana^{2,3}; and Rocha, João²

¹Universidade Lusíada – Norte and BRU-IUL (Business Research Unit – Instituto Universitário de Lisboa)

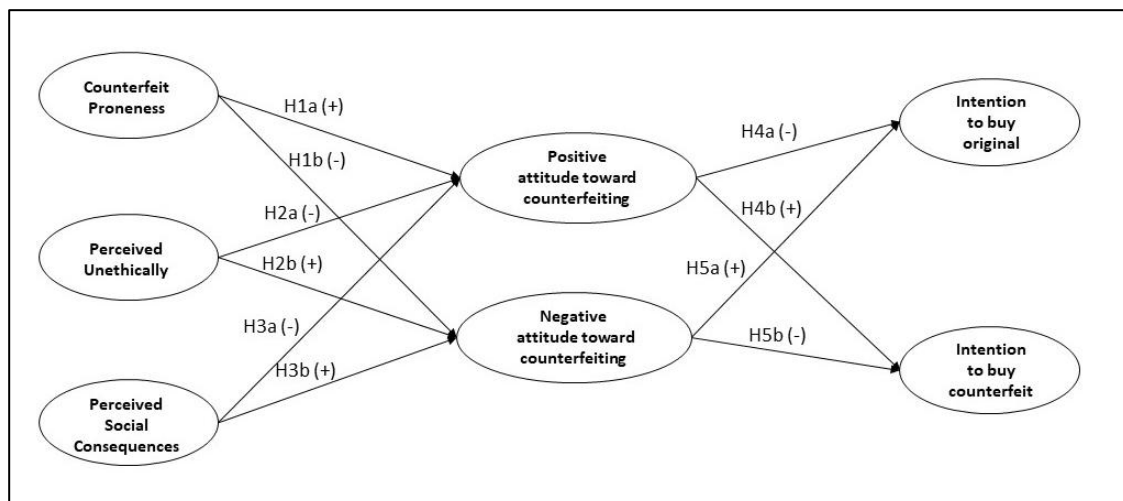
²COMEGI (Research Centre in Organizations, Markets and Industrial Management)

³GOVCOPP – University of Aveiro, Portugal

ABSTRACT

The spread of counterfeit goods disturbs the order of economic development by decreasing companies' profits and cannibalising the purchase of genuine products. The need for individualism and uniqueness are important characteristics of consumers who decide to buy counterfeit products (Omeraki Çekirdekci and Baruonu Latif Fatma, 2019). Counterfeit is described as illegally made products that resemble genuine goods but are typical of lower quality in terms of performance, reliability, or durability (Lai and Zaichkowsky, 1999). This research intends to analyse the attitude toward counterfeit in consumer buying behaviour. For that, it was used counterfeit proneness, the perceived unethical behaviour and perceived social consequence as antecedents of the positive and negative attitude toward counterfeiting. The attitude toward counterfeiting explains the intention of consumers buy originals or counterfeit products (Kini et al., 2004). When examining the intention of buy original or counterfeit products, this study provides a more holistic approach.

Figure 1. Conceptual Model



The data was gathered on a convenience sample of 207 individuals composed of both ungraduated and graduates' students. The questionnaire was designed and self-administrated through google forms which helped to ensure anonymity. Validated scales from previous studies were adapted to

measure the seven constructs. For counterfeit proneness, we used six items from Sharma and Chan (2011) scale. Consumer perception of unethical behavior was measured using four items from the Chaudhry and Stumpf (2011) scale, and the perceived social consequences were measured adapting four items from Coyle et al. (2009) and Wang et al. (2005) scales. For the attitude toward counterfeiting, we adapted the scale from Hoon Ang et al. (2001) and divided the items into positive and negative attitudes toward counterfeiting. Consumer's intention to purchase original and counterfeit brands was measured with eight items from Yoo and Lee (2009). All the items were rated on a 5-point Likert-type scale ranging from "it is not important at all" to "it is very important". It was considered several types of products that consumers can buy counterfeit and original (fashion, technology, cigars, and accessories). To test the research hypotheses, it was employed the PLS approach (SmartPLS 3.0). *H1a*, which suggests that counterfeit proneness (CP) has a positive effect towards consumer's positive attitude toward counterfeiting (ATC) ($\beta = -0.630, p < 0.001$), and *H1b*, which suggests that counterfeit proneness has a negative effect towards consumer's negative ATC ($\beta = -0.082, p > 0.05$), were not supported. Results show that the positive effect of consumer's perception of unethical (PU) behavior towards consumer's negative ATC ($\beta = 0.372, p < 0.001$) was supported, and the negative effect of consumer's perception of unethical behavior towards consumer's positive ATC ($\beta = -0.013, p > 0.05$) was not supported. *H3a*, which suggests that consumer's perception of social consequences has a positive effect towards consumer's negative ATC ($\beta = 0.091, p > 0.05$) was not supported, and results support *H3b* which suggest that consumer's perception of social consequences has a negative effect towards consumer's positive ATC ($\beta = 0.395, p < 0.001$). With respect to the negative effect of consumer's positive ATC on purchase intention to buy original products (*H4a*), and the positive effect of consumer's positive ATC on purchase intention to buy counterfeit brands (*H4b*), results were significant but were not supported ($\beta = 0.137, p < 0.05$ and $\beta = -0.671, p < 0.001$, respectively). Finally, results show that consumer's negative ATC has a positive effect on purchase intention to buy original brands ($\beta = 0.568, p < 0.001$) supporting *H5a*.

Findings show that consumer's positive ATC indicates a negative and strong effect on purchase intentions to buy counterfeits and a positive effect on purchase intentions to buy originals. This result might be explained by individual's social-economic status, suggesting that although there is the intention to buy an original product or the necessity for this kind of items, one may not be able to afford those goods. Another possible explanation may be linked to social desirability since people are often embarrassed to admit buying counterfeit products.

This research contributes to the counterfeit consumption literature and the findings may help managers deal with the phenomenon. Companies' managers need to protect their products from counterfeiters. Embracing technology might be critical to identify and stop counterfeiters and invest in

content marketing to acquire, engage, retain customers, and make them more conscious about the harmful effects of counterfeiting.

Keywords: Counterfeit, Consumer Attitude, Intention to buy Counterfeit, Intention to buy Original

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THE NEVERENDING SELF: SELF-CARE PRACTICES AS A DISCOURSE OF SOCIAL POWER IN ONLINE COMMUNITIES

Rolo, Ema¹; Nobre, Helena²; Baldi, Vania³

¹DEGEI; CLLC, University of Aveiro, Aveiro, Portugal

²DEGEI, University of Aveiro, Aveiro, Portugal

³DECA, University of Aveiro, Aveiro, Portugal

ABSTRACT

Actions encouraging consumers to exercise and taking care of the self are still called for social and political purposes. Akin to the body, the self is considered a project and a process that must be (re)worked on through evaluation, transformation, and management throughout life (Giddens, 1991). This paper looks at performances of motivational self-care within an online fitness community by exploring how self-care practices are reshaped within its social imaginary (Taylor, 2003). Historically, discourses of self-care have focused on conscious choices highly intertwined with individual responsibility and self-actualization (Dunn, 1959; Maslow, 1968; Travis, 1972). The rapid global growth of fitness and spa industries from the beginning of the 1990s and an ever-growing number of lifestyle influencers with an interest in wholesome living and improving one's self-image gradually introduced self-care practices into the mainstream. These changes have accentuated the importance of performing the self, which is best accomplished through attention paid to one's health and physical appearance and continuous self-actualization (see (Lupton, 2014; Sassatelli, 2015; Ruckenstein and Pantzar, 2017; Lupton and Smith, 2018). Modern subjects are increasingly cast as choosing individual consumer-citizens now capable of turning back upon itself: of critically studying the processes of its own constitution, but also of subverting them and effecting changes in them (Oksala and Pippin, 2005; Askegaard and Kjeldgaard, 2013). This aspect is particularly problematic when subjects become increasingly individualized assuming responsibility for the project of crafting their own self-identities from a marketplace of lifestyle commodities. The ever-growing interest in self-optimization in order to attain happiness and excellence (Pantzar and Ruckenstein, 2015) may also lead individuals to experience existential frustration or a constant problematization of self-esteem (Furedi, 2003). Using Foucault's concept of power and governmentality (1979, 1980), we explore motivational performances of self-care (regarding body enhancement) in the production and negotiation of power relations in the social media landscape.

Under the lens of Consumer Culture Theory, this study explores how online communities reconfigure "cultural blueprints for action and interpretation" in the offline world and the ways consumers create "distinctive, fragmentary, and transient cultural worlds through the pursuit of common consumption interests" (Arnould and Thompson, 2005, p. 873). We adopted a qualitative

research design to understand how such performances induce self-governance and whence self-projects materialize into consumption. Thus our leading research questions are: How does power is enacted through motivational performances of self-care on social media? How does an online community's social imaginary promotes a self-project? The research questions allow the examination of self-actualization practices as an internalized disciplinary mechanism and motivator to consumption. The notion of *biopouvoir* ("biopower") derives from the concept of 'governmentality of Foucault (1978) and constitutes a form of control and regulation of the human bodies and their behaviors through surveillance and discipline imposed and constituted in society. Biopower cannot holistically regulate individual's body and minds, but it is intrinsic to the motivation for self-care practices through the social media discourses of surveillance and regulation (Boyd, 2007). The growing representation of metrification and quantification (e.g., self-tracking apps) as trustworthy frames of analysis/forms of knowledge that seek to provide better self-knowledge also contributed to a naturalization of discourses contributors to the institutionalization of a self-care culture (Lupton, 2016a, 2016b). Self-care practices (ranging from diet to exercise or cosmetic surgery), and other vehicles of consumer-based identity construction are essentially self-directed consumer choices that enable individuals to accomplish goals and feel more contented with their lives (Thompson and Hirschman, 1995). The self-actualizing consumer (and the industries catering to him/ her) carries with it its particular models of governance and is inscribed in an individualistic and emancipative ideology of the primacy of the personal self as the ultimate authority on his/her own life (Askegaard and Kjeldgaard, 2013).

This research adopts a netnographic approach (Kozinets, 2020) to further understand the cultural phenomenon of self-care and how power is enacted through positive body representations. In netnography, understanding cultural meaning is the logic that inspires data collection and its analysis. To overcome the limitations of textual analysis methods, we introduced multimodal discourse analysis (Kress, 2010, 2013). This logic overcomes potential conflicts arising when treating each textual form separately and combining different sciences and epistemological glances (e.g. language analyzed through the lens of discourse analysis, images, and visual elements analyzed through the lens of semiotics) (Kozinets and Gambetti, 2021). Thus we move back and forth between images and words to discern the specific context that produced the visual and symbolic elements that encompass the larger narratives in which each visual element is embedded – personal, social, religious, political, commercial, cultural. The data is framed by a set of predetermined performances of biopower in social media focusing on a specific fitness community that motivates and promotes self-care practices. Data collection follows the netnographic ethics process and is ongoing. Data analysis includes the examination of all relevant posts which take the form of words, colors, images, and emojis, plus

screenshots of all relevant media stories in addition to field notes. This methodological orientation follows from the aims that drive Consumer Culture Theory research's focus on the experiential and sociocultural dimensions of consumption that include the symbolic boundaries that structure personal and communal consumer identities (Arnould and Thompson, 2005).

Preliminary data analysis seems to indicate that the underlying logic of motivational self-care discourses evokes the idea of a monadic self (Brinkmann 2005) that aims to liberate the individual from social norms and expectations. Fitness communities help to sustain that continuously finding new avenues of self-actualization concerning health, physical appearance, or performance comprehend a crucial factor for finding personal wellness. However more than often they encourage an ethos of individualism that faces a pluralization of options made available by increasingly global markets. The lack of sensitivity to contextual embeddedness in these online portrayals opens up a diversity of routes to modernity that consumers in different localities may embrace as "desirable goals" (Sandikci and Ger, 2002). The consequence is that the motivation for self-care practices, through the apparatuses and institutions of biopower, may inadvertently participate in the continuous production of normative categories that regulate consumers' lives. Further data collection and analyses will be conducted to better understand the role of motivational self-care practices as a disciplinary mechanism. Particularly, the responses to body-enhancement as a form of self-governance associated with institutionalized correct practices that live in the social imaginary of a particular community. Understanding how multiple consumption interests come together in online communities remains an intriguing avenue for future research and, and it may promote relevant insights for stakeholders who wish to develop strategies for catering to multiple consuming populations.

Keywords: self-governance; biopower; online communities; netnography; consumer identity projects

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MANAGEMENT CHALLENGES ARISING FROM COVID-19: REORGANIZATION OF A HEALTHCARE SETTING AND INSIGHTS FOR PATIENT TRANSFER WORKFLOWS

Salvatore, Fiorella Pia¹; Fanelli, Simone²; Milone, Michele¹

¹Department of Economics, University of Foggia, Foggia, Italy

² Department of Economics and Management, University of Parma, Parma, Italy

ABSTRACT

The condition for the healthcare services' provision, in a context of healthcare reorganization without increasing resources, is identified in the correct allocation of patients. During the COVID-19 pandemic and also in the times to come, access to high-intensity care will be subject to several challenges. There is, therefore, the need to promptly recognize the degree of patients complexity. It is essential to define criteria that make possible the identification of the patient correct allocation from the first access to the facility. In general, patient allocation should follow a multidisciplinary approach based both on the framing of needs by health professionals, and on an assessment that can make improvements to the health performance of the organization.

Starting from the identification of three gaps in the literature: (1) low research rate for the study of inter-departmental workflows; (2) low research rate for studying the elements of patient transfer management; (3) and low research rate to analyze the coordination between medical and non-medical professionals, this work aims to identify the critical issues related to the introduction of a new setting in a hospital in Central Italy.

To achieve the objective, a qualitative research study has been carried out. The results highlighted two aspects relating to the criticalities of the new structure. These will need to be taken into account to best support patient transfer activities. Analyzing clinical, organizational, managerial, and technical problems in an integrated way will help improve the management efficiency of healthcare organizations as a whole.

INTRODUCTION

The management of challenges in healthcare organizations is an important emerging construct that is understood in different ways, making its definition problematic (Doheir et al., 2019; Wilden et al., 2018). There is '*no widely accepted conceptualization that portrays the numerous influences that together make a [healthcare organization] more or less complex*' (Safford et al., 2007, p. 384).

Some non-broad definitions tie the complexity of healthcare only to the patient's clinical conditions (Grembowski et al., 2014; Islam et al., 2016). While, other broad definitions recognize that the

management of healthcare organizations is a complex issue influenced by multiple factors including the professionalism degree of experts involved in the organization as well as the presence of elements that cooperate to achieve good performance. Substantially, the complexity of healthcare organizations includes multiple, dynamic components interacting in non-linear and unpredictable ways (Kuipers et al., 2013). Among all the components, the management of patients in a healthcare facility is the most complex component to manage for an organization (Concin et al., 2021).

Emerging debates such as those related to identification of the challenges to inter-departmental coordination activities that affect patient transfer workflow are increasingly popular and can help in finding current definitions of socio-technical requirements to better support patient transfer workflows. Patient transfers greatly influence the healthcare organization management. Since 2000s, Hendrich et al., (2004) studied that patient transfers took place frequently every day in American healthcare facilities. Nowadays, in light of the changes and major innovations that healthcare organizations have had to implement as a result of the COVID-19 pandemic, many hospitals are operating well beyond 100% of their capacity. Consequently, ensuring efficiency and speed in the transfer of patients between the different departments is essential to achieve good performance within the hospital. From the literature review performed, three literature gaps have been found: (1) few studies on inter-departmental workflows; (2) few studies of management elements of the patient transfers; (3) few studies on the analysis of coordination between medical and non-medical professionals.

This qualitative research study was conducted at a hospital level to try to respond, albeit partially, to these challenges.

RATIONALE

To examine the challenges to inter-departmental patient transfers, a qualitative research study at an academic hospital in the Center of Italy has been performed. In April 2021, considering the needs arising from COVID-19, the inpatient setting has moved its location to a new healthcare facility. At the same time, an organizational remodeling was carried out which involved several OUs: Internal Medicine, Neurology, and Pneumology. The OUs care setting provides for an intensity-of-care-based organization which in the previous allocation was classified into two levels (medium and high clinical-care complexity). With the transfer to the new healthcare facility, the model has been fully realized with the creation of level three (low clinical-care complexity).

A few weeks after the transfer, critical issues related to the new low clinical-care setting emerged. Healthcare staff complained about the difficulty in completing routine activities with negative care outcomes influencing the risk of not being able to guarantee the safety of care. To address these critical

issues, the main aim of this study is to improve the management of the healthcare organization through the coordination of healthcare professionals. The qualitative method is widely used in the healthcare management theme to identify and provide a detailed understanding of complex interactions of technical and organizational issues (Roohi et al., 2020). Thus, in this study, a standard qualitative method was used to identify causes and to hypothesize corrective solutions.

METHODOLOGY

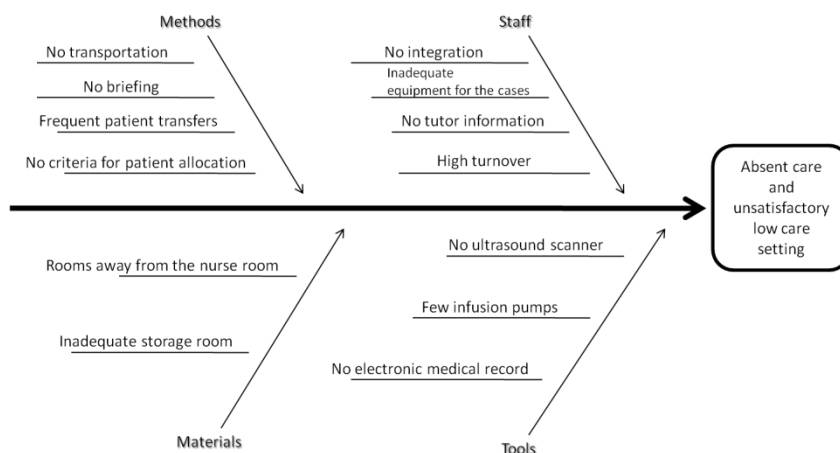
In order to achieve the research aim, the Delphi method was used. The Delphi method is an iterative procedure to gather and summarize the anonymous judgments of experts using a series of data collection and analysis. This technique is particularly useful when there is incomplete knowledge about a problem or phenomenon (Poortaghi et al., 2020). The Delphi method is based on 4 phases: (1) Participants anonymously express their opinion on the topic; (2) Opinions are collected and summarized in aggregate form in a document; (3) Participants re-analyze the opinions emerged comparing it with their initial opinion; (4) Phase 1 is repeated (Linstone et al., 2002).

According to the phases, professionals working in each of the three departments were enrolled. In total experts were 56 from Internal Medicine (17), Neurology (20), and Pneumology (19). The sample was considered statistically significant. During the meetings, participants were asked to express what could be the causes of the critical issues highlighted. Finally, using the Pareto diagram, the list of causes in order of importance was shown.

RESULTS

The issues were clustered and shown in a cause-effect diagram. Thirteen causes were found: 4 related to the “methods”; 2 “materials”; 4 “staff”; and 3 “tools” (Figure 1).

Figure 1. Criticality analysis of “low care” setting

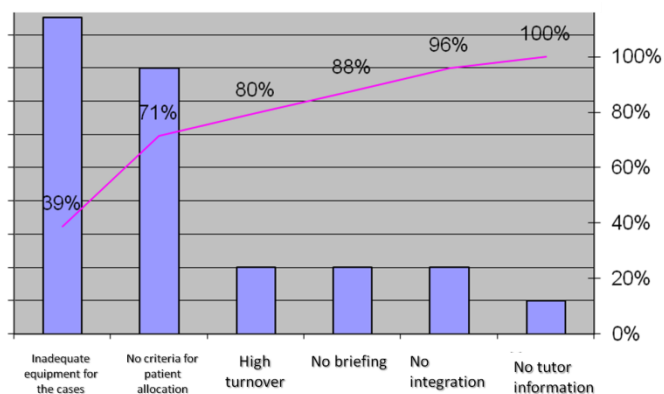


The order of the causes was represented in a Pareto diagram (Figure 2).

The figure highlights that the two causes considered most relevant by the staff represent more than 90% of the reasons. The two elements: *“Inadequate equipment for the cases”* and *“No criteria for patient allocation”* are closely correlated as the perceived care commitment is linked to the lack of standardized tools for the evaluation and correct allocation of patients.

Similarly, the criteria for the patients transfer to the setting of level 3, are not objectively defined and non-detailed indications have been set out, leaving considerable discretion to the healthcare professionals.

Figure 2. Identification of priority causes



CONCLUSIONS AND FUTURE RESEARCH

The findings highlight the complex and multi-departmental nature of patient transfer workflow. This research also launches important insights for future research examining issues related to patient transfer workflow such as the important role of the management within hospitals, the quality of the performance, and unintended consequences about the use of criteria to operate a correct allocation. For instance, the first challenge related to the ineffective inter-departmental relations is influenced by the perceived status among the staff members of the various clinical and non-clinical experts. Qualitative method allowed to gain a deeper understanding of the specific details of the ongoing patient transfer process.

In the organizational context analyzed, the patients allocation to the different levels of care took place exclusively on the basis of clinical assessments. In light of the results and as already widely consolidated in the literature, the patients allocation should firstly respond to the patient's care needs and, secondly, consider the integration of different dimensions: clinical and technical (Parast and Golmohammadi, 2019). To face these challenges and better support patient transfer activities, future research will focus on integrating analysis of clinical, organizational, managerial and technical issues.

Keywords: Healthcare management; Healthcare organization performance; Public health; Patient transfer workflow.

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CORPORATE SOCIAL RESPONSIBILITY AND COST OF CAPITAL: AN UNDERRATED RELATIONSHIP

Salvi, Antonio¹; Battisti, Enrico¹; Nirino, Niccolò¹; Christofi, Michael²

¹University of Turin, Turin, Italy

²Cyprus University of Technology, Limassol, Cyprus

ABSTRACT

“Does corporate social responsibility matter?”. For decades, scholars and practitioners tried to answer this simple question. However, the topic is complex and articulated. In particular, in corporate finance field scholars argue whether corporate social responsibility (CSR) has any effect on the value creation process and financial performance of the company (Margolis et al., 2009). In general, it is possible to state that empirical evidence and studies have shown a positive effect of CSR strategies on financial performance (Nirino et al., 2020). However, how financial market participants evaluate corporate CSR strategies remains an open debate (El Ghouli et al., 2011). To understand the effect of CSR valuation, one way is to understand how they can affect the risk of the firm and its cost of capital.

El Ghouli et al. (2011), in their pivotal work on the relationship between CSR and cost of equity, analyzed the US market highlighting a positive effect between the two factors. This result is also confirmed in the analysis of the debt cost, the interest rates associated with it, and the debt rating of the companies (La Rosa et al., 2018). Given that the cost of capital is a function of the risk of the company (Battisti et al., 2020), these results indicate that companies that invest in CSR have a lower risk and that in the future they will be more unlikely to fall into a crisis situation.

However, in a constantly evolving market, it is necessary to understand how and if CSR affects risk and the cost of capital in other markets and countries. To broaden the contexts of analysis of the relationship between CSR and cost of capital, we have analyzed this relationship in Shari'ah and non-Shari'ah compliant companies. Shari'ah is the set of life and behavior rules of life and dictated by God for the moral, religious and juridical conduct of his faithful (Miglietta and Battisti, 2016). Compared to Western cultures, religion and the rules of Sharia law are able to directly influence the financial and strategic choices of the company. On the basis of the great differences in the business management of a sharia or non-sharia companies, in the twentieth century, scholars began to learn and develop study and evaluation models that led to the birth of the so-called "Islamic Finance". In the past year, Islamic Finance has achieved an economic transaction value of over 2 trillion (Miglietta and Battisti, 2016).

On the basis of the relevance that Islamic finance is carving out in the world economic context, the aim of this work is to understand whether the results obtained by El Ghouli et al. (2011) are also noticeable for companies that follow sharia principles. To achieve paper's objective, we run panel data analysis on

firm's listed on Malaysian FBM EMAS Index from 2015 to 2020. The FBM EMAS index includes the FTSE Bursa Malaysia Top 100 Index and FTSE Bursa Malaysia Small Cap Index constituents. As dependent variables we used firm's cost of capital also known as WACC (El Ghouli et al., 2011). While as an independent variable we used the ESG scores to measure the level of CSR within the company (Nirino et al., 2019; Nirino et al., 2021). Following the approach of previous studies in our model we have also included several control variables, such as: industry, size, liquidity (Vrontis et al., 2021).

The preliminary results obtained showed that companies with higher ESG ratings have a lower cost of capital than those with low ESG levels. Furthermore, to analyze the basic relationship more specifically, we decided to divide the different ESG, environmental, social and governance components to see which components had a greater influence on the cost of capital. By applying the different models, it was found that the environmental and the social score reduce the level of the cost of capital, while as far as governance is concerned the results did not show any level of significance. It is good to remember that these are preliminary results and that other analyzes have to be carried out and that robustness tests have not been carried out as well as any problems of endogeneity that could undermine the final results of the analysis.

On the basis of the preliminary results obtained, it is possible to highlight many contributions. First, this research expands the empirical evidence on the debate on the impact of CSR on the cost of capital of firms. In particular, our analyzes focus on a market where Shari'ah and non-Shari'ah compliant companies operate, defining the potential positive effects that CSR strategies have on these companies. The second contribution, on the other hand, focuses specifically on Shari'ah and non-Shari'ah companies, in fact previous studies have shown that Shari'ah companies have better financial performance but at the same time have a higher cost of capital. The results obtained instead showed a decrease in the cost of capital for those companies with higher ESG rating, suggesting a better application of CSR strategies in those contexts characterized by a strong influence of religion on the business of companies.

Keywords: Corporate Social Responsibility; cost of capital; ESG practices; Islamic finance

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BELIEFS AND AWARENESS AS UNDERLYING MECHANISMS OF CSR IN FAMILY FIRMS

Schumacher, Andreas

Innovation and Entrepreneurship Group (WIN) – TIME Research Area, RWTH Aachen University, Aachen, Germany

ABSTRACT

INTRODUCTION

Cruz et al. (2019, p. 283) recently postulated that the discussion about CSR and family firms (FF) “is still open to debate”. Past research mainly focused on whether or not family firms are fostering CSR activities more than non-family firms as well as how different aspects of the family firm (e.g., women directors) determine these differences (Cui *et al.*, 2018; Dyer and Whetten, 2006; El Ghoul *et al.*, 2016). Nevertheless, especially the underlying mechanisms of CSR in FF are not fully understood yet, which is not only a missing puzzle in the academic FF literature, but also important for enablement of CSR in practice (Cruz *et al.*, 2019).

We shed light on these mechanisms by empirically evaluating whether managers’ beliefs about CSR in relation to their firm’s corporate ability (CA) and manager’s awareness about CSR are mediators between family involvement and CSR. To answer this question, we conducted a survey with German and Austrian medium-sized firms leading to a final sample of .853 complete responses. This study contributes to literature in two ways. First, gaining empirical insights on why these links between CSR and FF, which were found in previous research, exist, enhances the FF literature and especially the socioemotional wealth perspective of stakeholder theory. Second, our research leads to novel insights for the CSR literature; namely in the theoretical context of CSR mechanisms with regard to ownership (Wang *et al.*, 2020).

THEORY AND HYPOTHESES

FF and non-FF differ in their nonfinancial goals originating in the owning families’ needs. This concept is known as socioemotional wealth (SEW) and describes the interplay of financial and nonfinancial goals in FF (Gómez-Mejía *et al.*, 2007). Thus, merging CA as a key resource for financial success and CSR as being rather a resource for nonfinancial success (e.g., reputation) matches the underlying belief framework of FF owners. Thereby, family involvement could enhance beliefs that CSR goes in line with CA instead of diminishing CA (“CSR-CA beliefs”). Additionally, the SEW dimension of image & reputation describes that members of an owning family identify with the firm (Berrone *et al.*, 2012) and

CSR activities are drivers of firms' reputation (Shea and Hawn, 2019). Therefore, CSR does not harm CA in a FF mindset but could rather enable CA via reputation. Lastly, the higher the relative share of members of the owning family in the management board is, the more SEW-induced beliefs are manifest in the organization based on upper echelons theory (Hambrick, 2007). Therefore, we hypothesize:

H1: The relative share of members of the owning family in the management board is positively related to the CSR-corporate ability beliefs of the employees of a firm.

The research of Bhatnagar *et al.* (2020) demonstrated that spiritual beliefs are related to philanthropic activities. Similarly, we argue that beliefs about the interaction of CSR and CA relate with CSR activities itself:

H2: CSR-corporate ability beliefs mediate the positive relationship between the relative share of members of the owning family in the management board and a firm's CSR performance.

Another two SEW dimensions 'social ties' and 'control & influence' describe two different concepts, but have in common that members of an owning family have a rather close connection to their employees (Berrone *et al.*, 2012). Thus, such connection can enable improved internal communication including CSR leading to better knowledge about CSR within the organization:

H3: The relative share of members of the owning family in the management board is positively related to the CSR awareness of the employees of a firm.

The link between awareness and perception depends on the direction of the message: An increased awareness of positive messages about CSR (i.e. "the firm is doing good things") relates to having a positive image of the CSR activities itself (i.e. "the firm is doing a lot CSR") (Homburg *et al.*, 2013). Contrary, increased awareness of negative messages in terms of corporate social irresponsibilities relates to having a negative image of the CSR activities themselves. For internal communication, it could be expected that communication about CSR would be rather positive. Additionally and based on social identity theory, a positive picture of the CSR activities of a firm might trigger its managers to push their firms' CSR activities even more, which results in an increased CSR performance (Ashforth and Mael, 1989):

H4: CSR awareness mediates the positive relationship between the relative share of members of the owning family in the management board and a firm's CSR performance.

METHODOLOGY

We conducted an online survey of German and Austrian family and non-family firms with more than 50 employees and excluded some industries for better comparability (e.g., financial institutions). The final sample consists of 853 sufficiently complete responses. We focused primarily on middle managers

as survey respondents, because they are less involved in CSR decisions and therefore less prone to the social desirability bias according to established CSR literature (James *et al.*, 2017). We used the CSR performance construct developed by El Akremi *et al.* (2018), because secondary ESG data is mostly unavailable for medium-sized companies and does mostly not include all stakeholders as the one applied in our study does. We also draw on established measures for CSR CA beliefs (Sen and Bhattacharya, 2001), CSR awareness (Du *et al.*, 2007; Homburg *et al.*, 2013), and family involvement (Lee, 2006). Furthermore, we included primary data controls on the respondents like gender, age, education, experience, role, function, and perceived influence of the COVID-19 crises as well as secondary data controls on firm size, firm age, industry, and COVID-19 severity per region. We applied extensive pre-testing and tested our data for common method, informant, and nonresponse bias.

RESULTS

The Cronbach's alphas of latent variables applied are well above the threshold of 0.80 as well as average variances extracted (AVE) of latent variables applied are well above the threshold of 0.50. Structural equation modeling (SEM) using Maximum Likelihood estimation was used to analyze the data for the hypothesized model. The model produces good fit with the data ($\chi^2 = 1640.2$, $df = 748$, $\chi^2/df = 2.19$, CFI = 0.95, TLI = 0.94, NFI = 0.91, RMSEA = 0.04).

All four hypotheses were confirmed: The relative share of members of the owning family in the management board is an important predictor of CSR-CA beliefs (H1, $\beta = 0.074$, $p = .05$) and CSR awareness (H3, $\beta = 0.079$, $p = .03$). Results also confirmed the mediating effects of CSR-CA beliefs (H2, $\beta = 0.021$, $p = .02$) and CSR awareness (H4, $\beta = 0.083$, $p = .03$) between the relative share of members of the owning family in the management board and CSR performance. Regression results further confirmed robustness of these findings.

DISCUSSION

Our research offers insights for research and practice in two ways: First, we advance CSR and FF literature by providing a deeper understanding of the underlying mechanisms in terms of beliefs about CSR and awareness of CSR as mediators between family involvement and CSR performance. Second for practitioners, our research shows the importance of communication and culture (e.g., CSR beliefs) within a company as facilitators for actual CSR activities.

Keywords: family business, family firms, socioemotional wealth, CSR mechanisms, CSR beliefs, CSR awareness, corporate ability.

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IS MY SMARTPHONE A SELF-EXTENSION OF MY BODY? AN ANALYSIS OF OWNERSHIP PERCEPTION AND EXTENDED SELF USING AUGMENTED REALITY

Serravalle, Francesca; Viassone, Milena

Department of Management, University of Turin, UNITO, Turin, Italy

ABSTRACT

Retailers are increasing their adoption of “consumer-facing” technologies (i.e. Augmented reality) in-store (Bonetti *et al.*, 2018) to enhance shopping experience and their store environment (Pantano, 2015). In this innovative context, consumers are changing their way to buy and perceive products digitally. The high customizable ability of virtual objects (Kafai, 2010) allows consumers to perceive sense of ownership just scrolling the website and adding items into their basket. Thus, the device used to select and personalize products become a self-extension, allowing them to express their need (Schiele and Hughes, 2013).

In this way, virtual possession of an item is becoming an integral part of the user’s extended self (Belk, 1988).

In this scenario, we believe “consumer-facing” technologies could enhance more this sense of ownership of products visualized digitally, shaping boundaries between online and offline channels thanks the usage of immersive technology such as augmented reality (AR). Understanding this psychological state of mind, it could be very interesting for retailers adopting this kind of technology in-store to increase customers’ loyalty (Pantano, 2015; McCormick *et al.*, 2014).

Recently, scholars’ attention has focus more on the comprehension of AR digital tools and sense of ownership by consumers separately (Delgosha and Hajiheydari, 2021; Ainsworth, 2020; Kowalczyk *et al.*, 2021).

So, drawn on Belk’s framework on the “extended self in a digital world” (2013), this study seeks to investigate any relationships between the sense of consumers extended self in the digital device and the sense of ownership of a digital product.

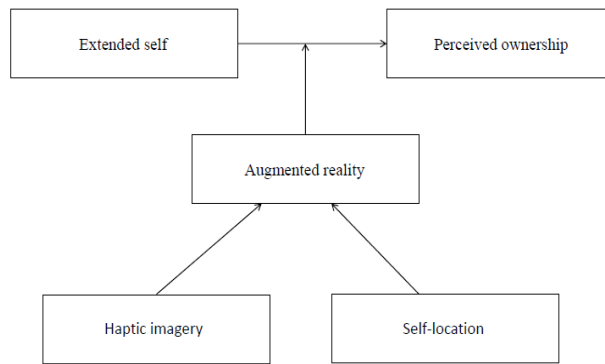
By the analysis of the fragmented literature about AR and sense of ownership using digital technologies, we have formulated the following hypotheses and the theoretical model (Figure 1):

Hp1: The higher is customers extended self in personal devices, the greater is their perceived ownership into digital products.

Hp2: The adoption of AR application positively moderates the relationship between extended self and ownership.

Hp3: Augmented Reality is positively influenced by haptic imagery and self-location.

Figure 1: The model



Source: Personal elaboration

To investigate this model, we designed an online 2 (AR vs website) x 2 (Personal smartphone vs No personal smartphone) between-subject design experiment. 160 young consumers between 18 and 40 years of age, completed the experiment. Participants were not informed in which scenario they would be, to avoid any kind of inference. Age was decided according to a study from McKinsey (2020), which reports that people between 18 and 40 years old are more interesting in searching a unique experience while shopping.

From this working paper, where now we are analysing data to visualise main results, we are expected to show there is a correlation between the level of customers embodied in personal devices and the sense of ownership in visualising digitally a product they want. Moreover, we believe that the use of AR technology to enhance customers' experience online (e.g. on the website) and offline (e.g. in-store with their personal smartphone) will increase the relationship abovementioned. This paper could bring many contributions in a topic which is so fragmented. It firstly expands literature on customer behaviour and digital technologies referring to the customers' sense of ownership of digital products. Then, this study enhances theoretically the "extended self" theory (Belk, 1988, 2013), showing a direct relationship between personal embodied into the smartphone and ownership perception of products during a virtual purchase.

From a managerial standpoint, this study contributes to give a higher understanding of consumers behaviour in the face of an innovation adoption, explaining better for retailers the importance to introduce immersive technologies such as AR in their business.

Keywords: Augmented Reality; Ownership; Retailing; Perception; Consumer Behaviour; Extended self.

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DIGITAL INNOVATION THROUGH NETWORKING AMONG AGRO-FOOD SMEs: THE ROLE OF R&D PROJECTS

Silvestri, R.; Ingraio, C.; Fiore, M.

Department of Economics, University of Foggia, UNIFG, Foggia, Italy

ABSTRACT

INTRODUCTION

The digital era is still emerging and its final outcomes appear not yet visible thus making tricky to produce precise predictions and draw conclusions (Lois et al., 2020). The agro-food industry shows a strong fragmentation, a progressive reduction of the supply chain's length and an increasing bargaining power of the large retailers' downstream of the value chain (McAdam et al., 2017).. Agro-food SMEs are largely recognized as strictly linked to their rural areas in ways that production management is based on the local agriculture system, and production and marketing processes are often fully managed by the entrepreneur (McAdam et al., 2017). Such enterprises often face hard problems in terms of innovative processes, suffering on the one hand structural limitations related to their small size (especially scarcity of organizational, technological, intellectual, and financial resources), on the other hand fragile connectivity and innovative penetration of the networks in which they operate (Baregheh et al., 2014). In this scenario, new digital technologies can play a decisive crucial role for the competitiveness, sustainability, and revival of agro-food SMEs. Chazarra-Zapata et al. (2020) highlighted that precision agriculture solutions for irrigation water use optimization would contribute to mitigating the climate change impact. It is a matter of fact that climate change is one of today's global concerns that alters rainfall patterns and make extreme climate events increasingly frequent and characterized by long periods of drought and flood (Harris et al., 2020; Ercin et al., 2019). Those events negatively affect water availability and quality, and reduce the capacity of ecosystem services to supply water to humans to meet their needs (Borsato et al., 2018). SMEs experience limitations when they are called to access and effectively implement digital innovation systems. These limitations can be overcome thanks to joined participation in R&D projects. There is a relationship between networking and firm innovation that affects the profit-making enterprises (Vrontis et al., 2020). Recently some scholars paid considerable attention on the issue of Big Data for "Smart Farming" (Wolfert et al., 2017), or the concept of smart agri-food company that emphasizes the use of technologies of information and communication in the physical-virtual cycle of production process management. An aspect that is not thoroughly investigated in the literature refers to the way how agro-food SMEs approach these digital technologies, to the skills needed to overcome the constraints that restrict the

possibilities of access to them, to the way of implementing them in their operation. Recently, some scholars have been interested in the theme of the role of European projects in small and medium-sized enterprises, focusing the complex process of resource and relationship management in the project development process (Ciarmatori et al., 2018). These considerations lead to posing the research question '*which is the role of R&D projects in the digital innovation processes of SME agro-food?*' Therefore, the paper aims to understand how business networking, within a R&D project, affects the digital innovation of agro-food SMEs. Then, the purpose is to investigate how a R&D project participation affects agrofood SMEs in adopting digital innovation, that are difficult to acquire directly, and how it impacts on the value creation process and on their organizational structure.

METHODOLOGY

For reaching the research aims, a longitudinal case study (Eisenhardt, 2007) is carried out by focusing on the dyadic relationship between two firms, Planetek and Tormaresca: the latter is a medium-sized South Italy winery, whereas Planetek is the company that provides the digital innovation and is responsible for the regional development hub as one milestone of Eugenius project. The investigation is carried out during the experimentation phase of the Horizon 2020 European project "Eugenius" whose objectives are to develop an European network of companies specialized in Earth observation services useful for managing natural resources and agriculture. In particular, the study observes the process of development and implementation of two 'applications' for the wine production management: the precision satellite vineyard mapping and the Big Data Analytics for differentiated harvest.

The analysis has a qualitative approach: data were collected through in-depth interviews with managers representing Planetek and Tormaresca in 2020. The analysis focuses on the business relationship between the two companies observed, within and beyond the R&D project, in order to highlight the methods of management and development of the project plan through the study of the content of the emerging interactions between the different actors involved. The business relationship is analyzed through the ARA (Actors-Resources-Activities) model (Hakansson and Snehota, 1995; Hakansson et al., 2009) developed by IMP - Industrial Marketing and Purchasing Group (Hakansson et al., 2009; Hakansson and Snehota, 2017).

RESULTS

This paper highlights that the process of commercialization of Planetek's innovative services significantly passes through a complex process of adaptation and development of technology to the specific needs of the user company. Therefore, the innovative process is managed successfully through the transformation of the project relationship towards a long-term relationship with the aim of

stabilizing the processes of learning and developing the skills necessary for the implementation, adaptation, and use of new technologies and knowledge within the user company.

Keywords: Digital innovation; Business Relations; Networking; Projects; Food

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VALUE CREATION WITH PROJECT RISK MANAGEMENT: A PILOT CASE STUDY

Testorelli, Raffaele; Verbano, Chiara

Dept. Management and Engineering, University of Padova, Vicenza, Italy

ABSTRACT

INTRODUCTION

The recent directions of international standards on Risk Management (RM), such as COSO framework and International Organization for Standardization's ISO 31000: Risk Management Standard, are giving an increasing relevance to value creation and protection as the main objective of RM also extending the view to potential positive effects of risks (COSO, 2017; ISO 31000, 2018), meaning that risk is no longer solely considered as something that must be prevented from happening (de Pooter, 2019). This aspect is even more important if it is considered in the context of projects, where there is a growing emphasis on value creation, rather than solely on the delivery of products or services, as the main focus of Project Management (PM) (Winter *et al.*, 2006). Particularly, Project Risk Management (PRM) is the stream of RM that deals with the management of risks in projects. PRM is a systematic process that aims to identify and manage risk, implementing systems and procedures to identify, analyse, evaluate and address risks in projects (Raz and Michael, 2001). The growing interest in PRM is due to the fact that projects are the main vehicles for innovation and growth, but at the same time they are characterized by inherent uniqueness and uncertainty (PMI, 2004; Maylor *et al.*, 2006), particularly in the current complex, dynamic and highly uncertain business environment. For this reasons, PRM is one of the major approaches implemented by companies to guarantee project success (Elkington and Smallman, 2002), and to foster value creation through the management of risks (Willumsen *et al.*, 2019). However, while international standards have been assuming that PRM creates value for project outputs and outcomes and provide also other strategic and organizational benefits, on the other side empirical literature reports conflicting results, even when they are compared with the indications provided by international standards and normative literature (Willumsen *et al.*, 2019), suggesting that they have been performed in diverse contexts, while adopting specific and diverse perspectives, and different levels of analysis. To address the contradictory findings reported in the literature, and to support companies to enhance value creation in projects, this study aims to investigate value creation through PRM testing a holistic framework that has been design to effectively reconcile the diverse perspectives on PRM.

OBJECTIVES AND METHODOLOGY

The objectives of the study are: 1) to analyse value creation through PRM in a pilot case study, 2) to test the validity and improve the empirical framework that has been created to address the first objective through the analysis of a pilot case study. Given the nature of the objective of this research, an exploratory and explanatory research through the case study methodology has been chosen, as it is the most appropriate one for this type of study (Yin, 1994). To this extent, a theoretical framework of analysis has been created on the basis of results emerging from a systematic literature review, then an empirical framework of analysis has been derived, specifically to conduct a multiple case study focused on value creation through PRM. The current study will present the pilot case study conducted and deeply analysed before performing the multiple case study. The *pilot project* was selected based on the adoption of PRM, the type of industry in which it was implemented and the availability and knowledge of the project manager and the other project stakeholders. Particularly, an IT consulting company (*Alpha*) based in Italy has been selected; *Alpha* is organised according to a combined model, both by projects and by process. The analysed project has been performed by *Alpha* for a client company (*Beta*) operating in the fashion branded eyewear sector, and it has the objective of improving both efficiency and reliability of the cost estimation process for new products, leveraging on process digitalisation and the management of knowledge on production costs; the project led to the design and implementation of a new cost estimating software application. In order to build the research protocol, firstly, well-known books and significant articles about research methodologies were consulted. After that, consolidated manuals and international standards about PM and RM, as well as empirical papers about value creation through PRM were analysed in order to collect the fundamental dimensions to be inserted in the theoretical framework. All the collected information was summarised to support the design of the questionnaire, that is divided into six sections: (1) *respondent profile*, in order to evaluate the subjective value system of the respondents (7-points Likert-type scale); (2) *contextual information*, including company and client profiles, and project overview to evaluate the level of innovativeness and complexity of the project; (3) *project stakeholders' profiles*, in order to classify project stakeholders according to their interest, attitude and power (Murray-Webster and Simon, 2006); (4) *PRM implementation* (e.g. PRM process and activities, PRM techniques and tools), to evaluate the level of maturity of the company toward risks (Yeo and Ren, 2009); (5) *risks analysis*, to evaluate the impacts of PRM on the project, adopting the diverse perspectives of project stakeholders; (6) *value creation*, to estimate the economic impact of PRM when compared with the cost of its implementation; in addition respondents were asked diverse sets of closed questions to collect their perceptions on the benefits actually obtained (7-points Likert-type scale). In order to measure the economic value created, an indicator has been defined as the ratio between the economic benefits obtained through PRM and the

cost for its implementation in relation to a specific stakeholder (*PRM value index, PVI*). On the other side, to evaluate the perception of respondents about the intangible benefits, a multi-attribute utility function has been used (Keeney and Raiffa, 1993) to consider their subjective preferences (*value system*). Furthermore, to ensure the project's internal validity through triangulation and to increase data reliability (Voss, Tsikriktsis and Frohlich, 2002), in-depth interviews have been performed with multiple respondents.

RESULTS AND CONTRIBUTIONS

Results from the *pilot case study* indicate that (1) PRM has created both economic and intangible value; (2) the economic value has been created mainly to project management ($PVI = 7.3$) and to *Alpha* ($PVI = 3.3$); (3) PRM has created economic value both through the management of threats (55%) captured mainly at the project level, and also fostering opportunities (45%) captured mainly by *Alpha*; (4) PRM has created also relevant intangible value to *Beta*, to *Alpha* (both strategic and organisational benefits), to project management, and to the project team; (5) the level of stakeholders' satisfaction with PRM value creation is medium-high (71% for project manager, 83% for the CEO of *Alpha*). Moreover, some first indications to foster value creation through PRM can be grasped from the analysis of the *pilot case study*, particularly (1) it is fundamental to adopt a multilevel approach in the analysis of value created through PRM; (2) PRM create value both managing the negative effects of risks and leveraging the positive impacts of opportunities; (3) it is necessary to consider stakeholders' value systems while evaluating their perceptions about PRM value; (4) it is fundamental to map project stakeholders at the beginning of the PRM process, and to define the most suitable strategies to involve different stakeholders group into the PRM process, considering that some stakeholders types (e.g. *sleeping giants*) could be a relevant source of risk for the project. In conclusion, this work suggests new and previously missing aspects on value creation through PRM, and the *pilot case study* verified the validity and refined the proposed holistic framework, that could be used in future studies, which should focus on different types of industries, companies and projects. This work contributes to fill a gap in PRM literature, provides indications to researchers about future directions, and gives guidance to managers on how to tailor and use PRM best-practices in order to maximize value creation from projects and the whole organization. (*References are available on demand*)

Keywords: Project Risk Management, Project Management, Value Creation, Case Study

HOW TO USE SENSORY MARKETING TO IMPROVE COSMETICS ONLINE SHOPPING EXPERIENCE

Shang, Enshang

Faculty of Science and Technology, University of Manchester, UOM, Manchester, UK

ABSTRACT

This study investigates how to use sensory marketing strategies to improve the cosmetic online shopping experience through influencing the consumer decision-making process. Visual and auditory factors predominate in the digital environments due to sensory limits, for instance, there is still no equivalent to physically smell, touch or taste experience (Labrecque, 2020; Tyler, 2018). Cosmetics are multisensory products, online retailers are seeking suggestions to create a positive, convenient, memorable user experience (Biswas, 2019). Consumers who shop cosmetics in the physical store switch to online mode due to the pandemic lockdown from 2020 to 2021, which accelerate the digitalisation development of the cosmetic industry. Sensory marketing study for the cosmetic online context is an underexplored topic area. The implementation of sensory marketing can improve consumer engagement and non-consciously influence consumer judgements and purchase behaviour (Biswas, 2019, Krishna, Cian and Aydinoglu, 2017; Spence, et al. 2014). This research provides both theoretical and practical contributions for the cosmetic industry.

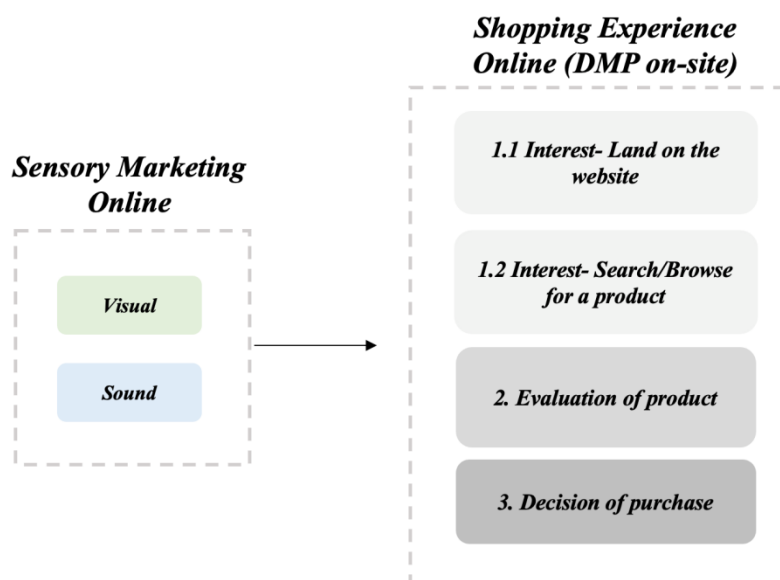


Figure 1- Sensory marketing influences online shopping experience (Researcher's own, 2021)

This research adapts the fashion consumer decision-making process on-site part "Interest-Evaluation-Decision" (Solomon and Rabolt, 2009) to "Interest: Land on the website – Interest: Search/Browse for a product – Evaluation of products – Decision of purchase" for the online shopping. Therefore, this

research proposes that sensory marketing can influence consumer online shopping experience through decision-making as shown in Figure 1.

This research conducted usability tests and interviews to identify visual and sound sensory marketing stimuli that have important influences on the cosmetic online shopping experience. The sensory marketing stimuli of cosmetic online shopping is presented in Figure 2.

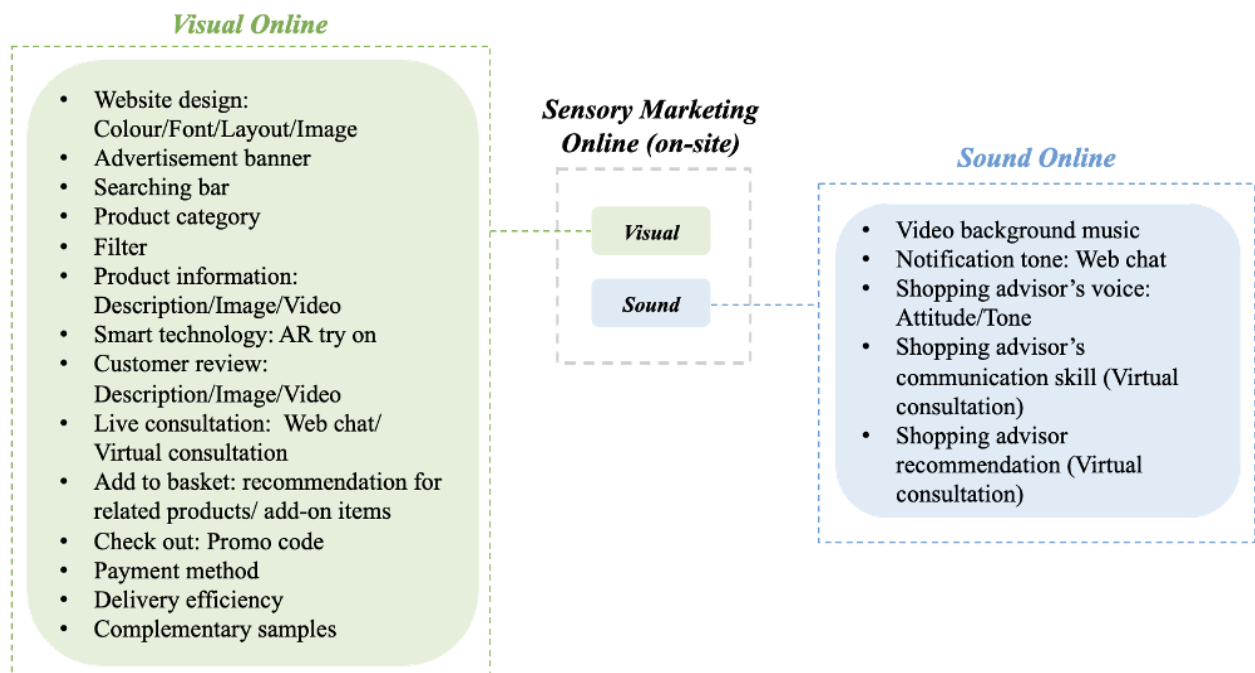


Figure 2- Sensory marketing stimuli of cosmetic online shopping (Researcher's own, 2021)

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M&A IN GREEK BANKING AND THEIR IMPACT ON THE FINANCIAL SYSTEM

Thanos, Ioannis¹; Christopoulos, Apostolos²; Katsampoxakis, Ioannis³

¹School of Applied Mathematical and Physical Sciences, National and Technical University of Athens, Athens, Greece

²Department of Business Administration, University of the Aegean, Chios, Greece

³Department of Statistics and Actuarial – Financial Mathematics, University of the Aegean, Samos, Greece

ABSTRACT

This paper examines the impact that some possible mergers between the four largest Greek banks may have on the stability and competition of the Greek banking sector. In order to be able to draw conclusions about the impact that an increase in the concentration of the banking sector will have on its competitiveness and stability, we consider the relationships i) concentration – competition and ii) concentration – competition – stability, for the period 2008-2018. The basic theories behind the relationship of concentration and competition are the i) Structure Conduct Performance theory (SCP) (Mason(1939)) and the ii) Effective Structure hypothesis (Demsetz(1973)). The first theory considers a positive relationship between concentration and competition while the second supports that there is no causality between the two. Using dynamic panel data we test these theories for Greek banking sector. We used the following econometric model which is based on the one used by Carbo and Fernandez (2007): $COMP_{it} = a_0 + a_1COMP_{it-1} + a_2CONC_{it} + a_3S_{it} + a_4X_{it} + a_5SD_{it} + a_6OC_{it} + \varepsilon_{it}$. The basic variables are COMP for competition and CONC for concentration. For competition we used as a proxy the Lerner index while for concentration the Herfindahl-Hirschman index respectively. Considering next the effect of bank concentration on the stability of the financial system the basic theories (Boyd and De Nicoló, (2005), Repullo, (2004)) are i) that less concentration might increase competition between banks, leading them to take more risks and as a result harm the stability and ii) in more concentrated markets larger banks become 'too big to fail', which is something they can use to take more risks and as a consequence will lead to moral risk problems. Accordingly in the relationship of competition - stability the theories are similar with the previous, indeed i) in less competitive markets the 'too big to fail' problem stands and ii) in more competitive markets banks operate with lower profit margins which leads them to take excessive risks. Although, despite the fact that the theories are similar and sometimes competition and concentration are considered the same under the traditional Industrial Organization theory(Mason(1939)) which embraces the SCP paradigm, according to the New Empirical Industrial Organization (NEIO) theory the competitive behavior of firms does not have to rely on information about the structure of the market (Bresnahan,(1989)). Following Kasman and Kasman (2015) and Fu et al. (2014) we test the theories of the last two relationships in the same

econometric model: $RISK_{it} = b_0 + b_1RISK_{it-1} + b_2COMP_{it} + b_3CONC_{it} + b_4SIZE_{it} + b_5CYCLE_{it} + b_6LR_{it} + b_7NIM_{it} + b_8CRISIS_{it} + b_9LLP_{it} + \varepsilon_{it}$, where COMP and CONC as before and RISK is bank z score as a proxy for stability. Also based on other studies (Berger et al., 2009; Jimenez et al., 2013) as a second step we added next a quadratic term of competition to test for non-linearity. All three models used in this study are calculated on the basis of the Generalized Method of Moments (GMM)) in order to face any endogenous problems that may arise. Using GMM estimators we found for the first relationship no significance between the two basic indicators (table 1). Therefore, our results do not support the SCP paradigm and make us lean more towards the theory of Effective Structure. In the model that studies the other two relationships, we found (table 2) for the concentration not to have a significant impact on stability so we could not rule in favor of any of the views of concentration – stability/fragility. In the same model for the other basic variable, we found (table 2) that competition has a marginally significant and positive relationship with stability. Also, to test for non-linearity we used a third model and added a quadratic term for competition. The results (table 3) show no significance for non-linearity and support the linear relationship of competition – stability. Our deduction from these results is that an increase in concentration due to mergers or acquisitions has no effect on the market power of the banks and their stability. Although if banks focus more on being more effective in managing their costs and their NPLs than simply being bigger to increase their market power, they might have more chances to increase stability. This study, is the first that test the basic theories of the three relationships mentioned using this methodology and models for the period of 2008-2018 covering both crises for the Greek banking system, Greek government debt and a period with unconventional monetary policy measures by ECB to face systemic risks in Eurozone. The paper could shed light on the darkness both to researchers and system regulators as to if Greek bank M&As might be a positive solution or they could lead to more trouble in times of crisis.

Keywords: Bank M&A, Financial Stability, Bank Competition, Bank Concentration, M&A Regulation

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TABLES AND FIGURES

VARIABLE	COEFFICIENT	STD.ERROR	T-STAT.	PROB.
LERNER -1	-0,434157	0,190977	-2,273346	0,0283
HHI	-5,66899	6,468742	-0,876367	0,3859
LLP	5,594816	2,308396	2,423681	0,0199
INTEREST RATE RISK	-4,79904	13,83778	-0,346807	0,7305
INEFFICIENCY	-1,518091	0,523648	-2,899071	0,006
LIQUIDITY RISK	-0,57804	3,169756	-0,182361	0,8562
CAPITAL TO ASSETS	-0,72641	2,576925	-0,28189	0,7794
LENDING/TOT.ASSETS	-3,537447	2,994225	-1,181423	0,2442
DEPOSITS/TOT.LIABILITIES	2,47783	1,620892	1,528683	0,134
OTHER EARNING ASSETS/ TOT.ASSETS	2,564012	3,155856	0,812462	0,4212
FEE BASED ACTIVITIES	-1,04E-10	4,71E-11	-2,204215	0,0332
ATMS/BRANCHES	-0,131112	0,303287	-0,432304	0,6678
GDP	-6,74E-13	5,58E-12	-0,120806	0,9044
CONST.	0,065709	0,103166	0,636924	0,5277

Table 1: Results of the econometric study of concentration – competition

VARIABLE	COEFFICIENT	STD.ERROR	T-STATIST.	PROB.
LNBANKZ-1	0,135644	0,124842	1,086524	0,2902
LERNER	0,114471	0,05717	2,002304	0,059
HHI	9,113786	9,124209	0,998858	0,3298
RGDP	20,61677	2,931706	7,032344	<0,0001
SIZE	-0,578229	0,477173	-1,211781	0,2397
LLP	-3,981513	1,215019	-3,276914	0,0038
LR	1,194722	0,886229	1,348097	0,1927
CRISIS	1,865079	0,153508	12,1497	<0,0001
NIM	-26,82579	16,94398	-1,583205	0,1291
CAPITAL REQ.	0,832779	0,043131	19,30833	<0,0001
CONST.	-0,376809	0,053155	-7,088878	<0,0001

Table 2: Results of the econometric study of concentration – competition – stability

VARIABLE	COEFFICIENT	STD.ERROR	T-STATISTIC	PROB.
LNBANKZ-1	0,129482	0,133476	0,970076	0,3442
LERNER	0,144587	0,101608	1,422989	0,171
LERNER ²	0,025094	0,058573	0,428426	0,6732
HHI	9,281579	9,398323	0,987578	0,3358
RGDP	21,56667	2,755268	7,827433	<0,0001
SIZE	-0,388827	0,440332	-0,883031	0,3883
LLP	-3,604646	1,20143	-3,000297	0,0074
LR	1,577162	0,905025	1,742674	0,0976
CRISIS	1,835308	0,158131	11,60628	<0,0001
NIM	-30,92965	18,19624	-1,699783	0,1055
CAPITAL REQ.	0,829995	0,045954	18,06162	<0,0001
CONST.	-0,356842	0,051624	-6,912338	<0,0001

Table 3: Results of the econometric study of concentration – competition – stability adding the quadratic term for competition

USING INFORMATION AND COMMUNICATION TECHNOLOGY IN LEADERSHIP – DEVELOPMENT OF A SCALE

Tirrel, Henning¹; Kaufmann, Hans Rüdiger²; Winnen, Lothar³

¹Department of Management and MIS, University of Nicosia, Nicosia, Cyprus

²Department of Management and MIS, University of Nicosia, Nicosia, Cyprus & University of Applied Management Studies Mannheim, Mannheim, Germany

³Department of Management and Communication, TH Mittelhessen University of Applied Sciences, Gießen, Germany

ABSTRACT

Information and communication technology (ICT) enables leaders and employees to communicate with each other as well as to share information efficiently (Darics, 2020; Hou, 2020; Sharpp et al., 2019; Cowan, 2014). Furthermore, employees are no longer bound to a specific place within the company's premises, but are empowered to work in third workspaces as well as when they want to (Kingma, 2016; Coenen and Kok, 2014; Bean and Hamilton, 2006). Accordingly, "organizations need to fully utilize the advancement and development of information technology" (Chen et al., 2021, p. 470). As a consequence, from 2014 to 2017 the percentage of companies equipping their employees with portable devices (including a minimum of 3G technology) rose from 66% to 70% (Eurostat, 2021).

In general, ICT affects the role of leaders as they have to pay "attention to the various ways team leaders shape technology practices" (Larson and DeChurch, 2020, p. 12). Therefore, leaders must be capable of using ICT properly (Oberer and Erkollar, 2018) when leading employees who work flexibly (which is typically subsumed under the construct internal numerical flexibility (Whyman and Petrescu, 2015; Martínez-Sánchez et al., 2011; Martínez-Sánchez et al., 2008)). Twelve expert interviews with HR managers and company leaders, mainly from German SMEs (small and medium-sized enterprises, because 99.5 percent of the companies in Germany are SMEs (Eurostat, 2020)), have been conducted and analyzed by following the Gioia methodology (Gioia et al., 2013). The interviews highlighted that leaders can reach out to employees by using a variety of hardware and software, in case they are skilled to do so, on a more personal base, like in a video conference, in comparison to purely leading via e-mail, for instance.

However, no appropriate scale could be identified so far in literature that captures the extent to which a company's leader uses hardware and software effectively and efficiently for their leadership/management tasks based on the necessary competences, especially when leading employees that work flexibly. The overall research question is: How can the usage of ICT influence the nexus between leadership and working flexibly. In order to answer this research question, this study aims at developing a new scale following a multi-method procedure as suggested from Ulaga and Eggert

(2006) as well as Churchill (1979); developing items out of already conducted expert interviews (first stage) enriched by items from the literature (as suggested by Müller and Antoni (2020)) as well as by applying an item sort task, a pretest of substantive validity (cf. Anderson and Gerbing, 1991), an exploratory and finally confirmatory factor analysis.

It is expected that through the aforementioned procedure relevant technological aspects of leading employees who work flexibly will be uncovered, ordered and subsumed in a new scale which can be used for further quantitative studies as the second part of mixed-methods research in SMEs (representing the final triangulated validation of the new scale), e.g. analyzing the nexus between leadership and working flexibly or between other constructs on an organizational level through the application of the new scale, probably as a potential moderator or mediator.

Keywords: scale development, information and communication technology (ICT), virtual leadership, flexible work, third workspace, (strategic) human resource management, workplace flexibility practice

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HEALTH LEAN MANAGEMENT IMPLEMENTATION IN INTEGRATED CARE PATHWAYS: A SYSTEMATIC LITERATURE REVIEW

Tiso, Anna; Pozzan, Caterina; Verbano, Chiara

Department of Management and Engineering, University of Padova, Vicenza, Italy

ABSTRACT

INTRODUCTION

Over the last decade, the health sector has been facing several challenges with increasing financial, political, and social pressures, intensified by the crisis generated by the spread of the COVID19 pandemic. Lean Management in Healthcare (HLM) offers many benefits to organizations, improving process efficiency and decision-making by cutting costs and wastes and enhancing the overall patient experience (Antony et al., 2019). However, HLM implementation is frequently limited to a departmental and segmented perspective, generating partial benefits hardly sustainable over time without a widespread approach, with the risk of transforming lean initiatives in sporadic events. In order to avoid a negative impact on the sustainability of lean journeys (Akmal et al., 2020), HLM should be adopted in long-term improvement projects, considering the entire value stream, also outside the hospital boundaries. Indeed, clinical pathways integrate the care delivered by the hospital units and by the facilities in the territory, with the purpose of guaranteeing care continuity. According to Hu et al. (2020), continuity of care aims to meet patients' needs by sharing information and relationships with the care teams, ensuring care overtime in their ongoing healthcare management. For this reason, seeking continuity becomes increasingly important in a fragmented and hyper-specialized healthcare system leading to concrete and achievable outcomes including reduced mortality, lower hospitalization rates and patient satisfaction (Hofer and McDonald, 2019). Care continuity demonstrates to significantly impact on long term pathways, considering the increased prevalence of chronicity and complexity of diseases. Actually, chronic patients result to be among the most relevant care pathways developed in the territory, representing the leading cause of death worldwide and counting increasing disease rates from these conditions globally (WHO, 2020). In this context, the adoption of HLM could improve the efficiency and the effectiveness of clinical pathways in the local health network of primary care, maximizing the value from the patient perspective. The more unpredictable, variable and complex patients' needs are, the more likely the organization will benefit from using HLM (Pless et al., 2017). However, the academic knowledge and the empirical evidence of this methodology are not yet detectable in the primary care setting that requires many resources, especially considering patients with chronic diseases (Kelendar et al., 2020). For this reason,

this study analyses the current literature to provide an overview of the topic, proposing a systematic synthesis of the implementation of HLM in clinical pathways developed in the territory, focusing on patients' needs and involving continuity and integration of care.

METHODOLOGY

Aiming to accomplish the research objective, a systematic literature has been performed according to the PRISMA protocol (Liberati et al., 2009). 3031 documents resulted from the bibliographic searching in Scopus, PubMed and Web of Science, arranging two groups of keywords in the combinations listed in *Table 1*:

KEYWORDS			
N.	Group 1: Healthcare and clinical pathways	AND	Group 2: Continuous Improvement
1	("continuity of care" OR "continuous care" OR "care continuity")		Lean
2	("integration of care" OR "integrated care" OR "care integration")		
3	("coordination of care" OR "coordinated care" OR "care coordination")		
4	("case management" OR "case manager")		
5	("primary care" OR "secondary care" OR "local health*")		
6	"social care"		
7	"long-term care"		
8	("medical home" OR "home based care")		
9	("transitions of care" OR "transitional care" OR "care transition model")		
10	("chronic pathway" OR "chronic care" OR "chronic disease" OR "chronic disease management")		
11	"chronic obstructive pulmonary disease"	AND	("lean management" OR "lean thinking" OR "lean healthcare" OR "continuous improvement" OR "lean principles")
12	diabetes		
13	"multiple sclerosis"		

Table 1 – Searching keywords

Only papers written in English were selected and the subject area filtering allowed to exclude 717 items related to biology, chemistry, pharmacology, nutrition dietetics and immunology. After the elimination of duplications, 1537 documents were submitted to a title and abstract analysis, evaluating their compliance with inclusion criteria (application of LM in the setting of primary care or secondary care). This step led to the exclusion of 1409 papers, then divided in subgroups based on their main topic: specific clinical and medical treatments; obesity or anorexia, body composition, nutrition; physical activity; sarcopenia; application of managerial techniques different from HLM; HLM adopted in settings different from primary or secondary care. 128 full-text papers were analysed to assess their inclusion into the final database, according to the exclusion criteria: 1. Absence of HLM among the managerial techniques applied in the paper; 2. Hospital or clinics as the only settings; 3. Articles not

including the topic of continuous improvement/operations management; 4. Books and notes. The final database contains 59 papers. A descriptive analysis has been conducted on the extracted articles, followed by a detailed content analysis. The latter has been developed firstly clustering: 1) Theoretical paper (e.g.: literature reviews), 2) Empirical papers, based on the experimentation of HLM improvement projects and the analysis of the results, 3) Opinion papers, that study perceptions and contextual factors before or without adopting HLM in the setting. Starting from this partition, papers will be further examined, focusing on the following dimensions: a) Specific aim (performance improvement, cultural change, degree of integration) b) Unit of analysis (process, patient, employee), c) Organizational and clinical setting (actors involved and type of care) d) HLM managerial and organizational aspects (e.g.: activities, procedures, etc.) e) HLM techniques and methodologies applied, f) Outcomes (direct results and unexpected spillovers), g) Barriers and facilitators.

RESULTS

The descriptive analysis highlighted the growing interest in the theme in the last 5 years (60% of the papers in the database), with the contribution of 53 different authors from 11 countries (main efforts from USA). The most engaged journal is *Quality Management in Health Care* (12%) and the 50% of the papers were published in Q1 and Q2 journals according to the Scimago Journal Rank. The papers were published in medical (65%) and in engineering (21%) journals, confirming the mutual relevance of the topic for both scientific communities.

The expected results of the content analysis comprehend the identification of the hallmarks to develop a sustainable long-term pathway in the territory through the implementation HLM. Moreover, these analyses will give the base for the subsequent development of the research, highlighting the gaps in the literature and the potential future research directions.

Indeed, despite the growing diffusion of HLM, its adoption in primary care settings is still underdeveloped. This paper provides a contribution from an academic point of view by presenting an overview, missing in the current literature, on how HLM has been applied in diverse clinical pathways in the territory, with the purpose of identifying the main variables of interest for its implementation. From a managerial perspective, the research responds to the practical need of guaranteeing an efficient, effective and safe continuity of care, improving the coordination in primary care context, by evaluating how HLM can be adopted and its effectiveness in improving clinical and managerial performances. The analysis of the current literature proposes a reference map to further develop the theme, underlying its novelty and the necessity to address the issue of care integration. Moreover, the indirect negative impact of COVID-19 pandemic on primary cares delivered to patients with multimorbidity or chronicity exposes the healthcare system to emerging challenges and risks,

that need to be managed and solved through new organizational and managerial approaches, in order to improve performance, sustainability, equity and accessibility.

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Keywords: Lean Management, Lean Healthcare, Lean Thinking, Care Integration, Care continuity, Literature Review.

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FUNCTIONING OF PUBLIC SERVANTS AND THE REPUTATION OF PUBLIC ORGANIZATIONS: THE PERSPECTIVE OF OVERQUALIFICATION

Tsameti, Angeliki¹; Tsamantouridis, Kyriakos¹; Bellou, Victoria-Maria¹; Andronikidis, Andreas²

¹Department of Economics, University of Thessaly, UTH, Volos, Greece

²Department of Business Administration, University of Macedonia, UOM, Thessaloniki, Greece

ABSTRACT

In the last two decades, a new era has been brought at the labor market which is distinguished by transformations, and rapid changes. No wonder it is considered to be more complex than ever before. It is argued that individuals are seeking to align their skills and knowledge with the requirements of potential jobs, pursuing to constantly enrich qualifications and experience, trying to stand out from their peers for a select number of jobs. At the same time, it is undeniable that employers are searching for the best candidates during the recruitment processes, in order to make use of most of the highly talented individuals' qualifications.

Given that overqualification in the public sector has been examined to a limited extent (Budría and Moro-Egido, 2014; Frenette, 2004; Kulkarni et al., 2015), we assume that this research will shed light on this issue, as surprisingly, so far, overqualification has been mostly examined within the private sector. However, in the case of Greece, this is a phenomenon which also affects the public sector, especially in the current era of economic recession. On the one hand, rising unemployment rates have pushed young people (potential employees) into overqualification, in an effort to maximize their "competitiveness" in the labor market. On the other hand, in 2013 public servants' suspension was introduced (Law 3354), while selection and promotions are largely based upon formal qualifications (i.e. degrees), putting pressure on public servants to enhance their qualifications. Existing scholarship on overqualification has mostly focused either on employees themselves (i.e. well-being) (Erdogan et al., 2018) or on their contribution towards their organization (i.e. job performance) (Fine and Nevo, 2008; Lee et al., 2020; Van Dijk et al., 2020).

Having taken all these issues into consideration, the current research aims to understand overqualification in the public sector. It focuses specifically on front-line public servants' overqualification, seeking to add both the level of perceived overqualification in the Greek public sector and its effects on public servants and served civilians' perceptions of the organization. The conceptual model under investigation appears in Figure 1. According to this, the direct relationship between overqualification and functioning of public servants is tested. In the present study, the term "functioning" reflects employee job performance and affective delivery. In order to offer a better understanding of this relationship, the moderating effect of a set of factors (i.e., burnout, job

characteristics, job meaningfulness) are also taken into consideration. Additionally, both the direct impact of overqualification on public organization's reputation and the indirect, via public servants' functioning, are also examined. The overarching theoretical frameworks for these relationships include the Person Job Fit theory (Kristof - Brown and Zimmerman, 2005) and the Job Demands-Resources (JDR) theory (Bakker and Demerouti, 2007).

Figure 1: Research Model

In terms of methodology, this was a diary study. Front-line public servants of Greek public organizations were asked to participate in the present research, along with their supervisors. Those who agreed were sent a folder containing all questionnaires to be filled by them (general questionnaire, daily questionnaire i. before starting work and ii. after the end of the workday), their supervisor (general questionnaire), and civilians they served (one questionnaire per civilian - up to three civilians per day).

Data analyses offered support to the hypothesized model shedding light to overqualification phenomenon in the public sector. Moreover, evidently, overqualified public servants are more likely to engage in affective delivery towards civilians, influencing in turn the latter's perception of the public organization's reputation. Aside from this, research findings add to the debate on the effects of overqualification on employees' performance, suggesting its negative effects. At a practical level, these results are of high value for public organizations' managers, as tools to improve the service experience of the citizens, offering advice as to (a) whether to continue to hire overqualified applicants, (b) which changes (in terms of job characteristics) they can make on in order to decrease the negative effects of overqualification on public servants functioning.

Keywords: Overqualification, Public Servants' Affective Delivery, Public Servants' Performance, Public Sector's Reputation.

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ARE CUSTOMERS THE NEW MARKETERS OF BRANDS?

Uzunboylu, Naziyet; Melanthiou, Yioula

Department of Marketing, School of Business, University of Nicosia, Nicosia, Cyprus

ABSTRACT

In today's digital world, one of the ways consumer-brand engagement happens via social networking sites (SNSs) (Liu and Lopez, 2016) is through brand-related user-generated content (UGC) (Kim and Lee, 2017) which refers to the contents such as reviews on a specific brand on Facebook (Kim and Johnson, 2016), videos discussing the features of a brand on YouTube (Arif et al., 2020) and brand selfies (user photos with a particular brand) on Instagram (Nanne et al., 2021). These various forms of social media contents, that are created (Mohammad et al., 2020) and published by unpaid and amateur contributors (Arif et al., 2020), are a big win for brands (Mayrhofer et al., 2020) in terms of consumer-brand engagement (Malthouse et al., 2016). Brand-related UGC, in fact, has the potential to shape consumer brand perceptions (Vazquez et al., 2020) and significantly influence a number of phases in the consumers' purchase decision process (Arif et al., 2020) because it is transmitted by a trustworthy information source (Thao and Shurong, 2020) embedded in a consumer's personal network (Mohammad et al., 2020). Thus, consumers are able to influence (Liu and Lopez, 2016) other consumers' information consumption activities (Nanne et al., 2021) on a level not previously seen.

Despite the growing interest of researchers and practitioners on consumer-brand engagement (Arif et al., 2020; Mohammad et al., 2020; Malthouse et al., 2016), the resulting empirical researches on consumer-brand engagement process through brand-related UGC (particularly brand selfies) remains limited, divergent and fragmented. In response, this study reviews the marketing literature on social media, devoting particular attention to the relationship between consumer engagement and brand-related UGC. More specifically, a systematic review was conducted in order to identify key themes and dominant concepts. Our systematic literature review identified 49 scholarly articles published between 2010 and 2021. The analysis of these articles constructs a robust understanding of this phenomenon, throwing light on the mechanisms underlying the appeal of brand-related UGC, particularly brand selfies, and their influential power in shaping consumer attitudes (Nanne et al., 2021) and engagement behaviour (Mohammad et al., 2020). A multidimensional framework, based on the analysis, was generated, that reflects antecedents, as well as, potential moderators and mediators of possible outcomes. In so doing, various research gaps on brand-related UGC on the consumer decision journey was identified and as this research domain is still developing, the need of a comprehensive and critical overview of extant research on this topic was discussed.

Keywords: Consumer engagement, Brand-related user-generated content, Brand selfies, Social media, Social media platform, Systematic literature review.

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THE DYNAMICS OF FEAR (TERRORISM AND COVID-19) AND THE COSMOPOLITAN MINDSET IN GLOBAL TRAVELS - A WORLDWIDE RESEARCH

Veréb, Vanda Noémi

GOVCOPP (Research Unit on Governance, Competitiveness and Public Policies) University of Aveiro, Aveiro, Portugal

ABSTRACT

The fear of unknown is the most fundamental fear with the highest motivational impact (Carleton, 2016). Rooted in biological survival instinct, when faced with unknown situations, like a novel potentially deadly virus or terrorism, fear, as a reflex response to unknown environmental stimuli, is activated to evoke the most effective (not efficient) escape behaviours (Ledoux, 2015). Fear has the power to exaggerate risk perception (Thompson *et al.*, 2017), impair rational thinking (Taha *et al.*, 2014) and even facilitate xenophobia (Murray and Schaller, 2016).

Fear has particularly devastating consequences to the tourism industry, where the prerequisite of global travels is safety (Richter and Waugh, 1986) or, most importantly, the sense of safety (Williams and Baláž, 2015). It is not only the direct, but indirect damage through the irrationally increased risk perception, an instinctive response to fear (Ledoux, 2015), that is the most devastating for tourism, as it reaches beyond geographical borders and lingers long after the crisis event itself (Karl and Schmude, 2017). Increased risk perception damages destination image (Perpiña *et al.*, 2017) and restrains the willingness to travel (Sarman *et al.*, 2016), in some cases, it can even cease international travels all together (Floyd *et al.*, 2004).

The aim of this research is to better understand the nature of irrationally exaggerated risk perception and find ways to address it in order to reduce the harm it causes. Fear is analysed in two different settings, terrorism and infectious diseases, in order to increase the reliability of the findings. First, the research focused on a man-made disaster, terrorism. Later, it confirmed the results in a case of natural disaster created by a novel infectious disease, COVID-19. While these are very different types of risks, the research found that the root of the fear, unpredictability, uncontrollability and potential lethality, as well as the reaction to the fear, irrationally exaggerated self-protection and outgroup xenophobia, are the same in both cases. Moreover, by applying grounded theory approach and conducting 140 interviews with a highly diverse multinational sample across the five continents and 29 national realities, the research concluded that cosmopolitanism is an antidote that can address the irrational extent in both fears. Through an inherent value orientation of openness, a conscious mind-set for

objectivity, a skillset of cultural and social sensitivity and through the resources a world-wide social and professional network can represent, cosmopolitans tend to have a higher personal resilience that enables them to fight back the evolutionary-coded urge to act out effective (not efficient) fear responses.

Based on this result, the study suggests down-to-earth guidelines on how to engage and encourage travellers and build up an open-minded and culturally sensitive global society, resilient to the irrational influence of fear. Finally, the research argues that tourism, while the hardest hit target of irrational fear, it also provides an exceptional context to administer the antidote of irrational fear by building up cosmopolitan character through global travels.

Keywords: Cosmopolitanism; COVID-19; Fear; Global Travels; Infectious Diseases; Travel Risk Perception; Terrorism; Tourism.

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BIG DATA AND BUSINESS DECISIONS: AN EXPLORATIVE STUDY OF THE RESOURCES DEPENDENCE IN THE APPLICATION OF BIG DATA IN DECISION-MAKING PROCESSES

Vona, Simone¹; Di Berardino, Daniela

Department of Business Administration and Management, University of Chieti-Pescara, Pescara, Italy.

ABSTRACT

This study aims to investigate inhibitory and enabling factors that influence the effective implementation of Big Data (BD) and Big Data Analytics (BDA) for strategic decision-making purposes. The BDs are a phenomenon that is causing a progressively greater impact in different fields at a global level (Mazzei and Noble, 2017), finding a large diffusion in business realities, influencing accounting models, control approaches, decision-making processes related to strategic planning and marketing, operational processes and new product development (Sheng, Amankwah-Amoah and Wang, 2017), though not without some difficulties. In the Capgemini's analysis, based on an international study across twenty sectors, it is highlighted that despite the problems related to the implementation, management and analysis of data there is progress in performance, involving "better decisions, better consensus, and better execution" in the strategic process (Capgemini, 2012). In 2020, according to Capgemini, the ability of organizations to exploit and take value from data remains fragmentary, highlighting the ability of organizations called "data master" to generate a profit of 22% higher than the average (Capgemini, 2020). Many efforts in the scientific debate have been focused more on the application and technological components, evolving in an uneven way to managerial studies (Ardito *et al.*, 2019). In this regard, the empirical understanding of the mechanisms inherent in BD initiatives aimed at improving competitive performance by achieving measurable business value is poor (Mikelaf *et al.*, 2020), where investments and expectations do not always lead to the achievement of the expected value (Surbakti *et al.*, 2020). The literature, however, expresses as primary inhibitors the use of BDs in decision-making and operational processes the lack of organizational skills and the technical-financial resources appropriate to their analysis (Crawford, 2013; Kwon, Lee and Shin, 2014; Alles and Gray, 2016). The lack of such resources requires collaborations with analytical capacity providers or other companies that are already mature in this regard, thus creating new dependencies (Surbakti *et al.*, 2020). The use of BDA appears to be functional to the extraction of information useful for a strategic change in times characterized by high uncertainty and ambiguity (Von Rijmeanam *et al.*, 2019). To understand the behavior of organizations with respect to changes in the environment in which they operate, it is possible to use the Resource Dependency Theory (RDT), supported by Pfeffer and Salancik (Pfeffer and Salancik, 1978). The authors discuss the dependence of results on resources, which occurs

when the benefits produced by an organization, understood as performance, are of common interest between the organization and its stakeholders (Prasad, Zakaria and Altay, 2018). The RDT finds in the concept of dependence the significance of organisational and decision-making behaviour of organisations (Nienhüser, 2008), because dependency arises when the resources necessary for the organization to generate those shared benefits have at least one of the following requirements: they are concentrated in the hands of a few actors; they are relevant to the organization (Hazen *et al.*, 2016; Crook and Combs, 2007; Pfeffer and Salancik, 1978). In this working paper, using the lens of the RDT, we want to respond to the literature gap by reconstructing the links, uses, inhibiting and enabling factors in the efficient use of BD and BDA in corporate decision-making.

Based on these theoretical premises, we have structured the following research questions: "At the strategic decision-making level, what are the inhibiting and enabling factors that influence the use of Big Data and Big Data Analytics?", "What are the BD's uses for strategic decision-making?" and "What are the dynamics of power management and the environments in which these projects are developed?". To answer such questions, the study will use an empirical qualitative approach, based on case study method and involving three large companies belonging to different sectors. The qualitative approach used appears functional to the investigation of this phenomenon, going to explore the "means by which organization members go about constructing and understanding their experience" (Gioia, Corley and Hamilton, 2013). The study will apply the principles of the Gioia method, which confers a "qualitative rigor" (Gioia, Corley and Hamilton, 2013), developing new concepts, balanced from using inductive approaches and a rigorous standard of conduction (Hassan and Pandey, 2019). This method confirms the validity of the use of cross-cutting case studies interviews, which allow us to transfer concepts and theories in different domains (Gioia, Corley and Hamilton, 2013). This method is also widely used academically in the areas of marketing, strategic management, and organisational behaviour (Hassan and Pandey, 2019).

The present study through empirical evidence contributes to the evolution of managerial studies, capturing through the new perspective of the RDT the dynamics underlying the analysis and implementation inherent in the projects of BD and BDA. Finally, considering the fragmentary success of practical implementation of these projects it is essential to provide a contribution that guides managers to obtain a greater understanding of the dependencies and dynamics of power fundamental for a use successful at the decision-making level.

Keywords: Big Data Analytics; Resource Dependency Theory; decision-making; strategic management; case study.

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HOW TECHNOLOGICAL INNOVATIONS HAVE RESHAPED THE WAY PEOPLE DEAL WITH RELIGION? A SYSTEMATIC LITERATURE REVIEW

Vrontis, Demetris¹; Iaia, Lea²; Trio, Oronzo³; Scorrano, Paola³

¹School of Business, University of Nicosia, Cyprus

²Dept. of Management and Business Administration, University "Gabriele d'Annunzio" of Chieti-Pescara, Italy

³Dept. of Management, Economics, Mathematics and Statistics, University of Salento, Italy

ABSTRACT

Nowadays, the growth of new technological innovations is continuously disrupting the boundaries and dynamics of economies, markets and society. Artificial Intelligence, human-like products, big data, Augmented and Virtual Reality, machine learning, Internet-of-Things (IoT), and Cognitive Systems, are some examples of this wide ecosystem (e.g. Kumar *et al.*, 2016; Ng and Wakenshaw, 2017; Longoni, Bonezzi and Morewedge, 2019). The relevance of technological innovations is mostly related to their ability to continuously disrupt rules and address new ones (Ferreira, Fernandes and Ferreira, 2019), affecting social theories and paradigms (Ossewaarde, 2019).

Religion can be also seen as driver of social change in both individual and collective behaviour (Cohen *et al.*, 2013). Religion influences the 84% of people (Hackett *et al.*, 2012; Orellano, Valor and Chuvieco, 2020) in their wisdom, morality and ethics (Finlay and Palmer, 2003; Rice, 2006). The complexity of its construct creates interest in several field of the literature, in the unsolved attempt of according authors toward a common definition (Emmons and Paloutzian, 2003; Orellano, Valor and Chuvieco, 2020).

In the last years, the debate on technological innovations involves even more researchers and regards several disciplines (Bharadwaj *et al.*, 2013; Setia *et al.*, 2013), with a deep fragmentation of studies (Hausberg *et al.*, 2019). On the other side, also religion is characterized by a multidisciplinary research and is considered an under-investigated topic (Mottner and Ford, 2010; Engelland, 2014). In addition, the COVID-19 pandemic has further disrupted people's paradigms, also in the way they used to deal with religion (Djupe and Burge, 2020), increasing a need to explore the emerging paradigms.

In the best of our knowledge, our research would be the first at examining the role and impact of the digital transformation in such relevant field, as religion, and how this impact on society, as there are not studies nor systematic literature reviews on such themes. We aim at providing a holistic understanding of the emerging paradigms of social change rising from the binomial of technology and religion. We will focus on the existent bond concerning the usage of novel digital technologies and religion and their role and influence on society, with the aim at understanding how technology has reshaped religion and affected social change. Our research question is "how the relationship between religion and technological innovations has evolved during the last years? How it has affected social change?". Through the "Antecedents-Phenomenon-Consequences" logic (Narayanan, Zane and

Kemmerer, 2011; Pisani and Ricart, 2016), we will carry out a systematic literature review on those topics, aiming at providing an holistic understanding regarding: a review of the previous research in the field; a theoretical framework highlighting the most relevant connections between technologies and religion; future avenues for the research in this area, related to the insights and knowledge gaps identified; advices for practioners.

To achieve the purpose of our systematic literature review and answer the research question, we referred to other systematic literature reviews (e.g. Denyer and Tranfield, 2009; Gaur and Kumar, 2018; Leonidou *et al.*, 2018). We will carry out the research using EBSCO Host Business Source Premiere, as it ensures the widest coverage in the business area (Kranzbühler *et al.*, 2018). The articles in our sample will be identified on peer-reviewed journals ranked 3, 4 or 4* in the ABS 2018 ranking list, to guarantee the high quality of the result (Christofi *et al.*, 2021). Papers will be analyzed with a full-length approach, excluding book reviews, commentaries, editorials, conference proceedings and replies.

The keyword formula elaborated for our research to be used in the EBSCO database (titles, abstracts, and keywords provided by authors) (Christofi *et al.*, 2019) relates to previous systematic literature reviews on technological innovations (Glikson and Woolley, 2020) and religion (Tracey, 2012), and it consists in the following keywords: ("artificial intelligence" OR "machine learning" OR "computational intelligence" OR "soft computing" OR "data mining" OR "evolutionary computation" OR "evolutionary programming" OR "genetic algorithm" OR "genetic programming" OR "fuzzy systems" OR "deep learning") AND ("religion", "religious", "church", "mosque", "synagogue", "temple", "Christian", "Muslim", "Islam", "Jewish", "Sikh", "Buddhism", "spirituality").

Keywords: digital transformation; religion; systematic literature review.

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CO-CREATION OLINE COMMUNITY- IDENTIFICATION OF KEY FACTORS REGARDING THE REALIZATION OF A CO-CREATION ONLINE COMMUNITY IN THE FIELD OF DIGITAL PATHOLOGY

Wendt, Ariana Selina; Kaufmann, Hans Rüdiger

University of Applied Management Studies, Hochschule der Wirtschaft für Management, HdWM, Mannheim, Germany

ABSTRACT

PURPOSE, OBJECTIVE AND THEORY

Due to increasing competition and innovation pressure caused by the VUCA environment (Kraaijenbrink, 2018) and the 4Ds (Knape et al., 2020, p. 9), co-creation online communities allowing the involvement of external partners in the value-adding process, gain ever more momentum (Lacks Kaplan, 2020, p. 44ff). Although there are already some best practices for collaborative online communities especially in the B2C field (Zhang et al., 2020, p. 687-707), nevertheless, to be the best knowledge of the authors, there are no co-creation online communities in a medical context in Germany, so far, and the essential external participant's point of view is represented insufficiently in corporate e-marketing activities. Even though co-creation is currently the subject of interests of diverse professions (Mandolfo, et al., 2020, p. 1-14; Rouse, 2020, p. 181-204; Iglesias et al., 2020, p. 154-166), the current literature and managerial practice shows a lack of conceptualization of concrete key factors, hence the practical and, above all, effective implementation of a co-creation online community is poorly illuminated at the moment. Reflecting this gap, Zhang et al. (2020) hold further empirical research to be required as to co-creation in the digital environment, to take the perspective of the external participants into account. They, therefore, recommend that "researchers may conduct interviews on the consumers' side to further categorize consumer traits" (Zhang et al., 2020, p.702) in this respect. This paper addresses this research problem aiming to identify key factors for the effective realization of a co-creation online community in the field of digital pathology. Detailed research objectives of this empirical research were, on the one hand, to conceptualize concise key factors and to investigate the contribution to scientific progress tailored to the idiosyncratic conditions of digital pathology and, on the other hand, to develop guidelines for the implementation of such a co-creation online community in practice. Due to the complexity of the construct 'co-creation online community in the field of digital pathology' and the authors' intention to provide valuable and deep insights, the construct was split into its major elements in order to look at them in more detail. A segmentation of the overall construct can also be found by Ramaswamy and Ozcan (2014, 2018) differentiating within

their value co-creation framework the elements as to co-creation, platform, stakeholder and ecosystem. In addition, Rill and Hämäläinen (2018) consider a de-composition of the construct to be useful. In this case, the construct was divided into the following sub-elements: co-creation, online community, digital pathology -as radius of action of the co-creation online community- and potential external members identified as the group of “Millennials”. Based on the review of the mainstream literature, the central research question was specified by four detailed research questions (Q1-4) which address the four structural elements of the overall construct, built a guiding frame for the research activities and to which the empirical research sought to reply to (Fig. 1).

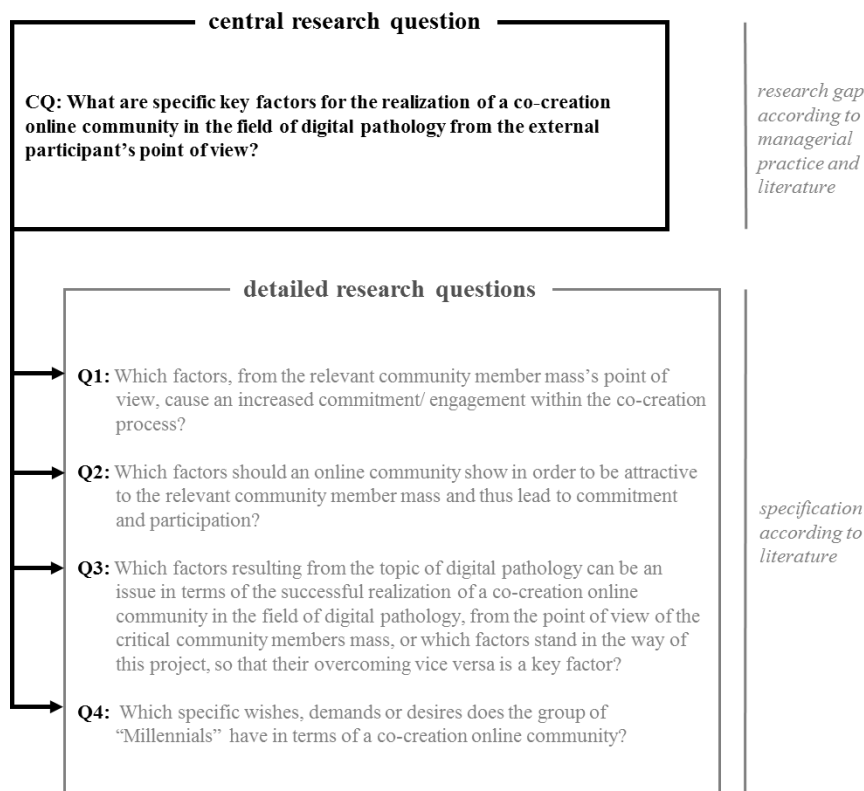


Figure 1: The guiding (detailed) research questions

METHODOLOGY

In order to meet the research objectives a qualitative research with a case study as the research method conducting 10 pre- tested expert interviews with pathologists from all over Germany, which belonged to the group of “Millennials”, was designed. The analysis of the data material was made via MAXQDA 2020 Analytics Pro following the steps of the structured content analysis by Mayring (2015).

EMPIRICAL RESULTS AND FRAMEWORK AS CONTRIBUTION TO THE RESEARCH OF THE FIELD AND MANAGERIAL PRACTICE

The results are elicited key factors addressing each of the three aforementioned structural elements of the overall construct. The key categories, deductively qualitative and inductively qualitative (i.e. “work life balance”) created by content analysis, include both requirements as to personnel and technical aspects as well as insights into the motivation of participation. In terms of the digital pathology specificities, the key factors lay in the overcoming of potential barriers. Regarding the potential external participants of “Millennials”, key factors that need to be addressed, lay in the uniqueness of this generation’s demand. The central results and the categories and sub-categories are included in the developed conceptual framework. The evaluated key factors should not be seen isolated as interrelationships became obvious (Fig. 2). It is necessary to take care of them, when realizing a co-creation online community in the field of digital pathology. For instance, the motivation behind participating in the co-creation process might relate to the uniqueness of the character of the Millennials as well as to special conditions in the field of digital pathology.

ORIGINALITY/ INNOVATIVE VALUE

The innovative added value of the research consists of the high level of detail of categorization and the resulting holistic framework. The results not only close the research gaps, but allow, in particular, the deduction of specific recommendations for managerial action. The developed framework might be a good starting point for future research avenues in the stream of co-creation online communities in other areas in general or in a similar medical context such as oncology, with “Millennials” as members of the co-creation process.

CONCLUSION AND FUTURE RESEARCH

Potential for further research ambitions is seen to exist in the optimal member constellation for the co-creation online community in the field of digital pathology. Moreover, a validation of the developed concept by quantitative research is suggested in order to specify the nature of relationships of the factors involved (i.e. cause and effect analysis, moderating and or mediating effects).

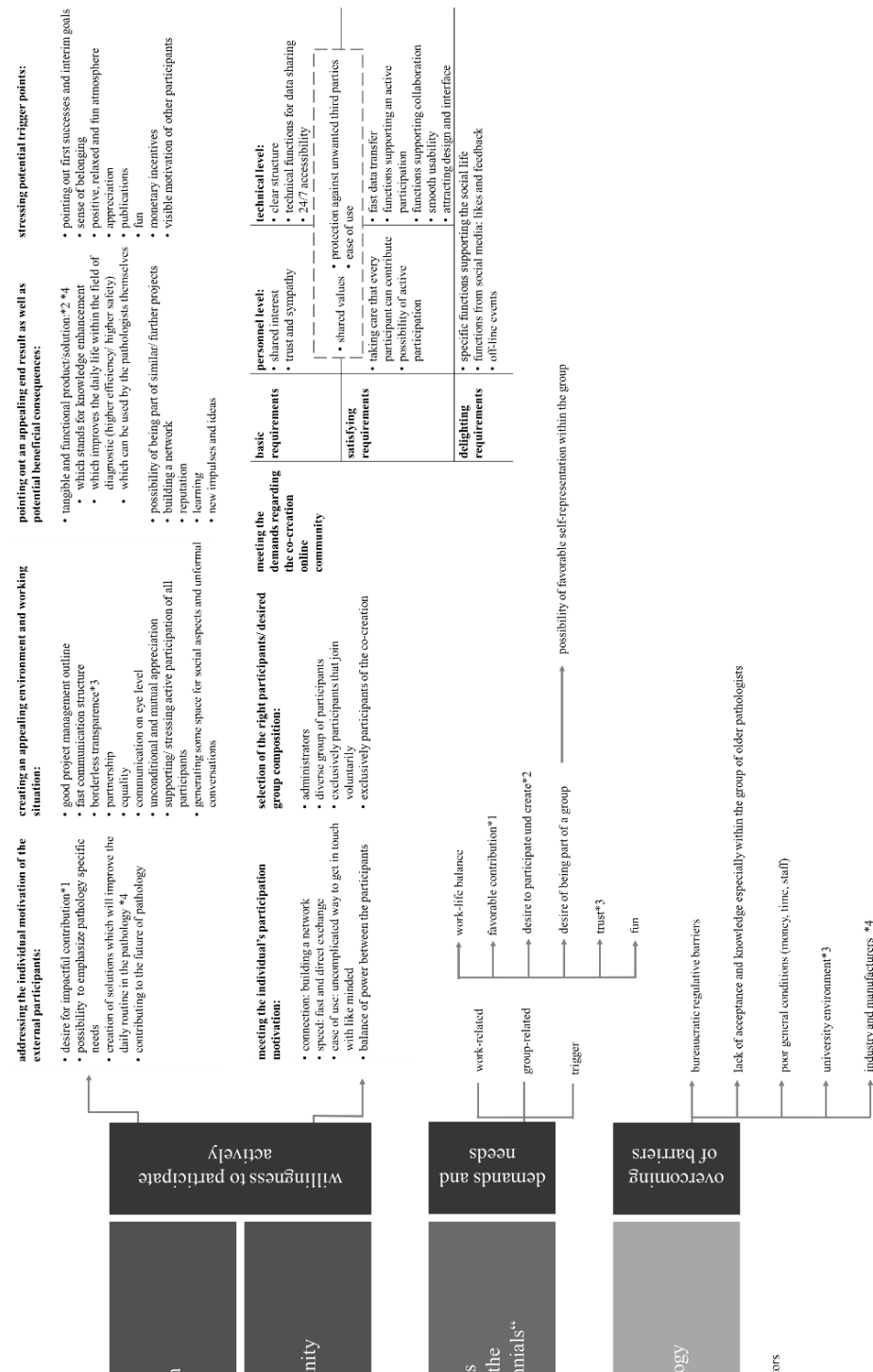


Figure 2: Final conceptual framework

ACKNOWLEDGEMENT

The authors would like to thank the interviewed pathologists for their dedication and participation in the interviews in spite of turbulent times caused by the global SARS-CoV-2 pandemic.

Keywords: Co-Creation, Online Community, Digital Pathology, Marketing, Innovation Management

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FACTORS AFFECTING MAINLAND CHINESE (HOME PLACE) UNIVERSITY STUDENTS' INTENTION TO STAY IN HONG KONG (HOST PLACE): PERSPECTIVE FROM SOCIAL CAPITAL THEORY

Wut, Tai Ming; Xu, Bill; Sum, Carman; Lau, Joseph

College of Professional and Continuing Education, The Hong Kong Polytechnic University, HKSAR

We declare that there is no potential conflict of interest

ABSTRACT

INTRODUCTION

The purpose of this paper is to investigate factors influencing mainland Chinese (home place) university students' intention to remain staying in Hong Kong (host place) upon completion of their university studies. The first research question in this study is that what are the factors influencing mainland Chinese (home place) students' intention to remain staying in Hong Kong (host place) upon graduation? The second research question is that what are the associations among dimensions of social capitals? The last research question examines boundary conditions of the education levels and gender.

Social capital is "the sum of the actual and potential resources embedded within and derived from the network of relationships possessed by an individual or social unit" (Nahapiet and Ghoshal, 1998, 243). In short, social capital can be regarded as total resources originating from a person's network. It is composed of "structural capital, relational capital and cognitive capital." Structural capital refers to the existence of connections among people. Relational capital refers to one having identification to a group. In other words, it is the quality and reliability of the connection. Cognitive capital is "the shared interpretations and collective visions within a group" (Chang and Hsu, 2016, 722). We draw a proposition that mainland Chinese students with higher social capitals in these aspects that they have earned during their studies in Hong Kong may have greater intentions to continue staying here after their graduations.

Mainland Chinese students spent time studying in university is not only for pursuing academic knowledge but also for establishing their networks in Hong Kong (Structural capital). Sometimes, such students may get referrals from their local friends when searching jobs (Relational capital). When mainland Chinese students establish friendship from their classmates or other local people through other means such as internship or part-time jobs, they shall have more in-depth interactions with the locals (Cognitive capital). It probably provides mainland Chinese students more confidence to stay in

Hong Kong for job searching. Previous literature reported a linear result, it would be possible to check if the presence of non-linear associations.

Thus, we could have a set of hypotheses listed as follows:

Hypothesis 1: mainland Chinese students with higher structural capital have higher stay intention in host place (higher mobility).

Hypothesis 2: mainland Chinese students with higher relational capital have higher stay intention in host place (higher mobility).

Hypothesis 3: mainland Chinese students with higher cognitive capital have higher stay intention in host place (higher mobility).

Cognitive capital could have larger effect on stay intention. It is because cognitive capital has higher level of motivation.

Hypothesis 4: mainland Chinese students with cognitive capital have quadratic effect on intention to stay in host place (higher mobility, non-linear manner).

METHODOLOGY

An online survey was used to recruit mainland Chinese university students. A total of 155 valid questionnaires were returned with a response rate of 40.8%. Structured equation modelling was used to verify our proposed hypotheses and research model. Software SmartPLS (Version 3.2.9) was used to compute those path coefficients.

RESULTS AND CONCLUSION

It was found that structural capital and relational capital are the important factors affecting mainland Chinese students' intention to stay in a linear manner. Cognitive capital self-moderates the relationship between cognitive capital and intention to stay. This study has a unique contribution to social presence theory. The effect of Cognitive capital is quadratic instead of linear one. Relational capital is more important to female students than male students. Structural capital is more important to senior year university degree students than sub-degree students.

ACKNOWLEDGEMENTS

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Keywords: social capital theory; structural capital, relational capital, cognitive capital; quadratic effect

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A CONJOINT ANALYSIS OF UNIVERSITY CHOICE

Wut, Tai Ming; Lee, Daisy

College of Professional and Continuing Education, The Hong Kong Polytechnic University, HKSAR

ABSTRACT

INTRODUCTION

Each year there are a lot of secondary school leavers choosing their universities. There has been numerous research conducted on the topic of high school graduates' university choice in the past. It was found that there were a lot of factor affecting students' choice including family, friends, course availability, university reputation, distance from home and job prospect (Soutar & Turner, 2002). Other factors including entry qualification and fees were identified by Walsh et al. (2015). It seems that many considerations are taken for the choice of university.

LITERATURE REVIEW

Comments on online or internet might satisfy secondary school leavers' information need (Xu & Yao, 2015). Today all the secondary school leavers' age is around 15-18. They belong to the generation Z. That is to say, they born and grow up with computers and internet. They spend over 10 hours daily to obtain and share material (Djafarova & Bowes, 2021).

Usually comments online are from people we don't know. On one hand, we might not trust their opinion as we do not know who they are. On the other hand, their opinion carries weight as they do not have conflict of interest with us.

Opinions from friends are important as we know the source of the opinion. Friends' opinion could have higher creditability.

According to the needs theory, once the needs have been satisfied, people would engage in certain behavior. The behavior would follow the advices provided by online or friends (Xu & Yao, 2015).

METHODOLOGY

Conjoint analysis had been used in marketing field for several decades (Walsh et al., 2015). Due to a number of factors working at the same time, conjoint analysis could be a suitable method to determine relative importance students attach to attributes and the utilities they attach to the levels of attributes. As this paper focuses on undergraduate students' university choice, studies mainly concerning school leavers, postgraduate students, and program or country choice were excluded. Before the main

survey, a focus group with ten students was conducted. Three main attributes were turned out for further analysis: university reputation, opinion from friends, and opinion from internet.

A survey was used to recruit secondary school students. In order to make the survey more workable, three levels were assigned for each attribute. It makes the total combination of 27. To reduce the respondent evaluation task, a fractional factorial design was used and a set of nine scenarios was constructed to constitute the estimation stimuli. It would be more possible to get the correct picture easily. Seven point likert scale was used to detect preference rating.

A total of 472 valid questionnaires were returned with a response rate of 70.8%. IBM SPSS was used to the analysis. The value of R-squared is 0.985 indicating a good fit.

RESULTS AND CONCLUSION

The relative importance values are 39.697 percent for opinions from internet; 35.441 percent for opinions from friends and 24.862 percent for university reputation. It is found that opinions from internet are the most important factor affecting students' choice which was not mentioned in the previous similar studies. Opinion from friend is the first runner up and the university reputation is the second runner up. This study has significant marketing implications.

Keywords: conjoint analysis; electronic word of mouth (eWOM); reputation; peer influence; university choice; secondary school students

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TEACHING STRATEGIES FOR A MIXTURE OF ONLINE AND FACE-TO-FACE STUDENTS: PERSPECTIVE FROM SOCIAL PRESENCE THEORY

Wut, Tai Ming; Xu, Bill; Wong, Adam

College of Professional and Continuing Education, The Hong Kong Polytechnic University,

ABSTRACT

INTRODUCTION

Some of the universities have a hybrid mode of teaching, that is to say allow students to choose either face to face traditional classroom format or online format. They are allowed to switch one mode to another mode at their convenience. Teachers need to teach two modes of students at the same time. It would be a practical issue when the COVID-19 pandemic situation getting better. Students are allowed to attend the class. However, there could be a valid reason that students cannot come due to the quantitative requirement. Perhaps students' family members become closed contacts with confirmed cases. Students thus cannot come to the class physically. On the other hand, some overseas students cannot come due to their own country pandemic situation. Or some students do not have good computer and network or quiet place. They have to come to the campus to attend the class. It was reported that some difficulties were faced by teachers.

TERMINOLOGY

People use 'hybrid' in mixed manners. They mix up the meaning of 'blended' with 'hybrid.' According to the Oxford English Dictionary (2021), 'Hybrid' means "Derived from heterogeneous or incongruous sources; having a mixed character; composed of two diverse elements." (Oxford English Dictionary, 2021) The term 'Hybrid' refers to a course that mixes face-to-face with distance learning mode at the same time. That is to say, some of students are in face-to-face mode, and the rest of students are in online mode (Young, 2002). People use 'hybrid' in mixed manners.

People sometimes use the word "blended" represent the same meaning. According to the Oxford English Dictionary (2021), blended means "to mix, mingle; especially to unite intimately, so as to form a uniform or harmonious mixture." Thus, one of the usually explanation is to combine face-to-face instruction with computer-mediated instruction (Graham, 2006).

The term 'blended synchronous' used when teachers have two kinds of students: face-to-face and online (Bower et al., 2015). It solve the problem of some students cannot come to the class due to COVID or other quarantine requirements.

Hybrid mode could offer some flexibility to the university to accommodate the needs of students. Teachers become headache as they operate in two different learning environments. The first research question is how to conduct our class effectively in hybrid mode format? Does the percentage distribution of students online and face to face affect the choice of teaching strategy?

LITERATURE REVIEW

Social presence would influence the quality of communication. Usually face to face mode has higher effect than online mode (Chang & Hsu, 2016). It imposes some challenges on blended synchronous hybrid teaching and learning (Zydney et al., 2020). Use poll and quizzes might improve students' engagement and sense of distance could partly be solved using chat room and discussion forum (Raes et al., 2020). Wang et al. (2018) points out that interaction between online and classroom students are important and technologies plays an important role (Wang et al., 2018).

METHODOLOGY

In depth interview was used to obtain feedback from students and instructors in a university. They have participated in this case study through face-to-face or online format within the research period. To be eligible as our research respondents, they need to have actual experience in a university class which both face-to-face and online mode was implemented at the same time. Content analysis was used to the subsequent analysis.

CONCLUSION

Three possible strategies have been proposed as follows:

- 1) Conduct the hybrid class as traditional face-to-face method
- 2) Conduct the hybrid class as online method, students bring computers in the classroom doing online class
- 3) Use teaching assistant to deal with either online or face-to-face classroom students

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A VALUE-BASED CLUB-PERSPECTIVE STAKEHOLDER ANALYSIS OF THE FOOTBALL INDUSTRY OF CYPRUS

Yiapanas, George; Thrassou, Alkis; Kartakoullis, Nicos; Vrontis, Demetris

School of Business, University of Nicosia, Nicosia, Cyprus

ABSTRACT

RELEVANCE OF THE STUDY

Football has long transcended its state of being as a sport or activity, to evolve into a business that supports a complex and dynamic multi-billion industry (Hamil and Chadwick, 2010). Never having lost its original identity, nonetheless, it still bears massive influence, far beyond the economic one, at the social and cultural levels, affecting and being affected by a multitude of stakeholders (Kunkel, Doyle and Berlin, 2017). Inexorably, this phenomenon of multi-stakeholder envelopment, entails a wide set of challenges, risks and considerations for football clubs that need to develop the requisite strategies that identify, interrelate and, ultimately, balance the value exchanges involved towards a business and socially sustainable future (Sotiriadou, 2009; O'Boyle and Bradbury, 2013; Dolles and Söderman, 2013).

In the club perspective, the above highlight the imperative of understanding the nature and role of key stakeholders and delineate the value they each expect to provide to the club (Zagnoli and Radicchi, 2010). This is, however, not a set of individual and/or independent linkages, but a systemic network of stakeholders and values, whose collective effect shapes the very essence of clubs, both in their economic and social sense (Kartakoullis et al., 2013). Clubs, thus share value and align interests and strategies with each stakeholder, forming alliances and partnerships that are founded on a win-win principle (Freeman, 2017); and the collection and interconnection of these relationships constitute the backbone of a strategic framework, that considers every stakeholder and its corresponding value, not in isolation, but in conjunction with each other, merging them into a unified value-based system (Tantalo and Priem, 2016; Gerke, Woratschek and Dickson, 2020; Toma and Catana, 2021). A system that enables clubs to respond efficiently and effectively to the incessant environmental changes that are redefining the business world across industries and organisational typologies; and facilitates the appropriate strategic adaptations (Vrontis et al., 2014). This research seeks to resolve the above issues and close the existing gap, by identifying the industry's stakeholders and their value, and develop a stakeholder value-based framework in the club perspective, with the novelty that for the first time all the industry's forces, actors, and values are combined and interrelated as a system.

AIM AND OBJECTIVES OF THE STUDY

Flowing from the above, the aim of the research is to comprehensively identify the key football industry stakeholder components and value categories, in the individual club perspective, and to conceptualise and test their interrelationship in the Cyprus context towards the development of a corresponding framework of club benefits. Towards this aim, and through an extensive research that theoretically develops a value-based framework that it subsequently empirically tests, the following objectives have been set:

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| Research objective 1: | To theoretically identify the main football club stakeholder categories and their individual components. |
| Research objective 2: | To theoretically identify the generic football value categories and their individual components. |
| Research objective 3: | To theoretically, generically interrelate football stakeholder and value categories and components. |
| Research objective 4: | To develop a generic preliminary theoretical framework of stakeholder-value interrelationship in the club perspective. |
| Research objective 5: | To test the framework in the case of Cyprus and correspondingly adapt and refine it. |

RESEARCH GAP

In spite its afore-described importance, though, extant studies on the topic are only partial and incomplete or tend to over-focus on individual stakeholder-value relationships; or perceive stakeholders as broad categories, overlooking the fact that various sub-categories exist as diverse entities; or analyse the industry's forces, actors, and values individually and not as a system. This research bridges this gap in knowledge through its aim to comprehensively identify the key football industry stakeholder components and value categories, in the individual club perspective.

METHODOLOGICAL APPROACH

Methodologically, considering the complex contextual circumstances, the study developed and applied a customised multi-level approach in order to collect and verify qualitative data. The research deployed every significant relevant study in the field to develop an initial generic framework, which was first validated by an Expert Panel and subsequently tested in the Cyprus-specific context. The empirical stage applied the qualitative approach, gathering data through forty-one [41] semi-structured, face-to-face interviews with individuals holding the highest and most relevant positions

within the top football clubs, as well as interviews with key industry stakeholders. The results were analysed using NVivo computer-assisted qualitative data analysis software.

FINDINGS

This research aimed to comprehensively identify the key football industry stakeholder components and value categories, in the individual club perspective, and to conceptualise and test their interrelationship in the Cyprus context towards the development of a corresponding framework of club benefits. This was successfully achieved by empirically testing the theoretical model within the specific industry and correspondingly adapted and refined. Following the analysis of the findings, a framework has been developed, and it is graphically illustrated below (Figure 1).

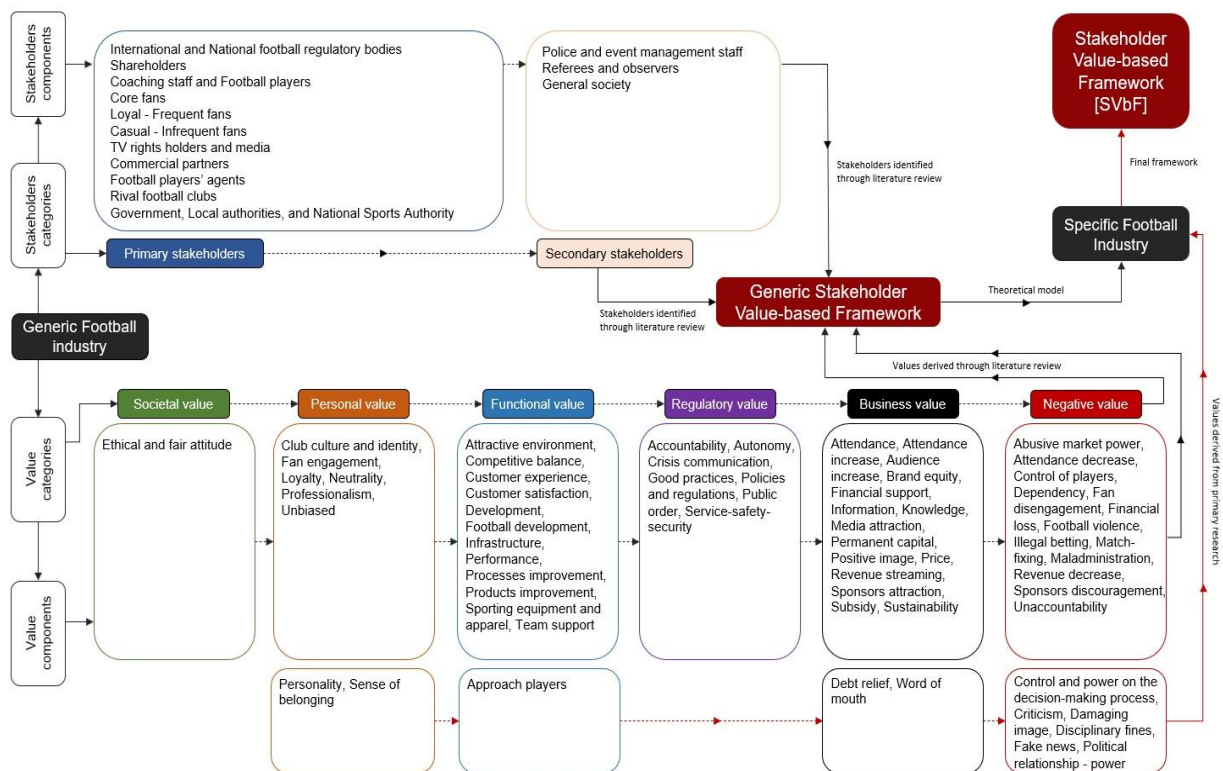


Figure 1: The framework for the value-based club-perspective stakeholder analysis in the football industry

The first stage theoretically identifies and categorises the generic football industry stakeholders. Leaning on Freeman's stakeholder model, the fourteen [14] recognised industry stakeholders are grouped into two [2] categories, 'primary' and 'secondary', taking into consideration their relationship with the football club. Primary stakeholders include those groups or individuals who are vital for the growth and sustainability of the club, thus

maintain a direct relationship, while secondary stakeholders involve the wider football environment and specifically those agencies that can influence the primary relationship.

The second stage identifies and groups the main football industry value components. First, the value categories are recognised, based on specific drivers that are directly linked with the football environment. Concentrating on the veracities of the examined industry, football is marked as a colossal economic-business environment, is dealing with stakeholders operating in a functional and regulated setting, is associated with strong emotions having a massive social impact and is embedded with deep socio-cultural elements. Similarly, football creates undesirable implications generating negative values that need to be marked. Consequently, it is apparent that the proposed value categories should at least capture the equivalent perspective, reflecting on the industry's unique traits and functions and deem the individual stakeholder's needs. By redeveloping the models already introduced by Vrontis et al. (2014) and by Kunkel, Doyle and Berlin (2017), the proposed framework includes six [6] value categories, the 'societal', the 'personal', the 'functional', the 'regulatory', the 'business' and the 'negative' value categories. Then, building on the existing literature, and studying the different functions of each industry actor, the stakeholders' values are identified and allocated in each value category. At this stage, each category fosters the values deriving from the literature review.

The third stage of the framework interrelates stakeholders and their related value deriving from the existing theory and develops a generic value-based framework in the individual club perspective. This theoretical model serves as a reference tool and need to be examined and tested through primary research in the specific industry, and correspondingly adapt and refine.

The fourth, and final stage, involves the development of the Stakeholder Value-based Framework [SVbF], taking into consideration the values identified through literature review and tested via primary research, together with the new values derived from the examined industry. It is revealed that all the generic industry values are valid and that the examined industry is in line with the international football industry. Furthermore, supplementary values are obtained due to the unique industry characteristics. The traits of the football industry of Cyprus alter the various stakeholders, producing value that is directly linked with the industry's financial, sporting, cultural and social conditions.

CONTRIBUTIONS

The research findings contribute significantly to knowledge, presenting scholars and practitioners with a systemic and comprehensive understanding and prescription of the individual club stakeholder management relationships and synergies in the Cyprus football industry towards strategic business and social sustainability. In this vein, the development of the framework acts as a map, a blueprint for both theory and practice, bridging the gap in the literature, offering new avenues for further research, and arming executives with practicable new knowledge. The research's content, context and methodology significantly improve our understanding of the football industry, producing a holistic set of contributions to scholarly business knowledge, and the gained insights and recommendations act as catalysts to individual football clubs' strategic redevelopment and repositioning against their internal and external stakeholders.

Keywords: Football industry, Cyprus football, Stakeholder theory, Football stakeholders' value, Value-based analysis, Stakeholders' synergies, Strategic development

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THE INFLUENCE OF STORE ATMOSPHERE ON CUSTOMER ENGAGEMENT IN LUXURY RETAIL

Zeng, Ni

School of Materials, University of Manchester, Manchester, United Kingdom

ABSTRACT

1. RESEARCH GAP IDENTIFIED

Industry and academia have both realised the importance of using interactive technology for enhancing customer engagement, and providing excellent customer experiences (Lemon and Verhoef, 2016; Grewal, 2017; Hollebeek et al., 2019). A body of literature exists on the effect of store atmosphere on consumer behaviour. However, few studies consider the role of technology on multiple atmosphere factors, and how the inter-relationships between technology-enabled atmosphere effects the emotional responses, and the customer perceived values, within luxury store settings (Roggeveen et al., 2019). There is thus a gap in understanding the impacts of in-store technology-enhanced atmosphere on customer engagement and experience, taking into account potential moderating effects of the virtual presence of other customers (Pantano and Verteramo, 2017).

2. RESEARCH AIM AND OBJECTIVES

The aim of this research is to investigate the influence of store atmosphere on customer engagement within the in-store luxury retail context, by further examining the role of interactive technology on engagement and experience, as well taking into account any moderating effects related to other customers.

This aim is underpinned by the following core research objectives: 1. To analyse how interactive technology contributes to the store atmosphere, to understand the emotional responses and perceived value of customers in relation to technology-enhanced atmospherics in luxury stores.

2. To investigate the relationship between the consumer emotional responses and their perceived value toward technology-enhanced atmospherics, and their subsequent customer engagement behaviours.

3. To explore the moderating effect of social presence on emotional responses and perceived value of customers in luxury stores, and to determine the customer engagement behaviours.

3. METHODOLOGY

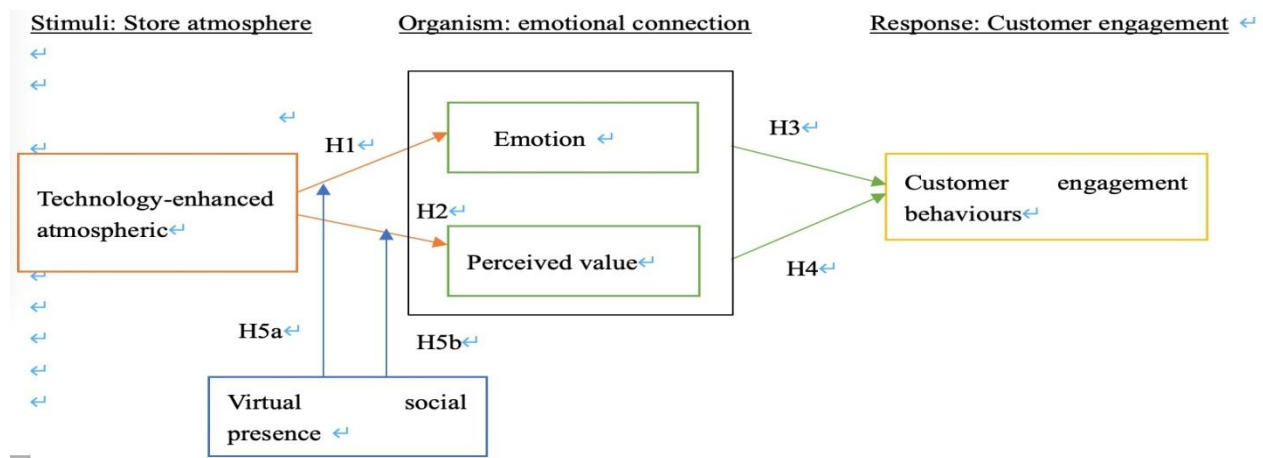
This research will employ quantitative method and online questionnaires to collect data from 300

Chinese millennials. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) is used to explore the possible underlying relationship among set of observed variables. Then, structural equation modelling (SEM) and regressions will be used to test all hypotheses. T-test and ANOVA will be used to examine the distinction among different group of samples.

4. RESULTS AND KEY FINDINGS

Based on the prior studies, this paper presents a theoretical framework to outline hypotheses, which have been created based on the extant literature. However, the data collection part has not started yet.

Fig.1 The conceptual framework of this paper



5. CONTRIBUTION

Theoretical contributions

1. An understanding of the interaction between customers and interactive technology in luxury store, and the interaction between focal customers and other customers in luxury store.
2. Identified specific emotional responses and perceived value of millennials in luxury store.
3. An understanding of the role of interactive technology and other customers in luxury store
4. Developed a conceptual framework for explaining how store atmospherics (interactive technology and other customers) affect customer engagement behaviours in luxury retail and how store atmosphere affects the level of customer engagement.

Practical contributions

1. This model provides a starting point to identify how luxury retail can integrate interactive technology for improving customer experience, and engaging customers more effectively.
2. To provide recommendations on how luxury retailer attract customers enter into luxury store.

6. ORIGINALITY

The originality in this paper resides in the development of newly developed hypotheses to test the technology-enhanced atmosphere effects on in-store customer engagement and experience, whilst interpreting the potential moderating role of customers within the in-store context. This paper also reveals the negative emotion responses that clarify how negative emotions effect customer engagement behaviours.

Keywords: Store atmospherics, customer engagement, interactive technology, luxury retail

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